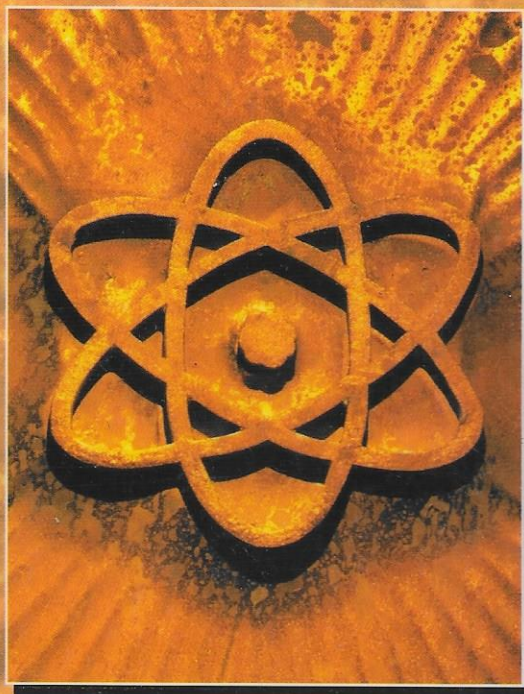


The
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Book 1

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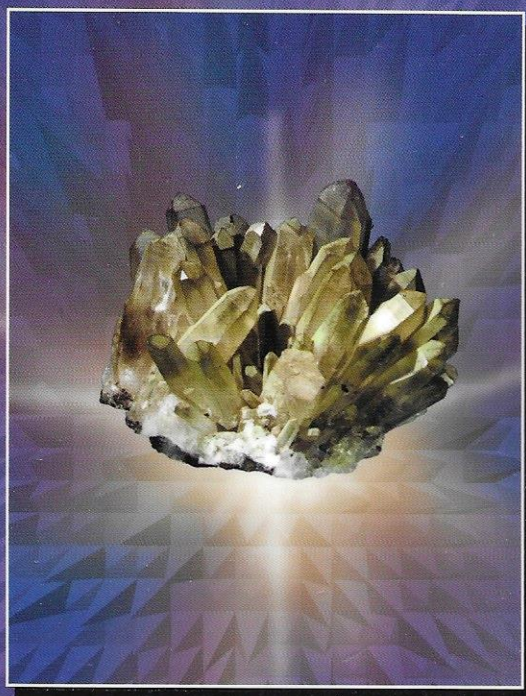
Lesley Smart

Book 2

**Introducing the Molecular
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David Johnson

The
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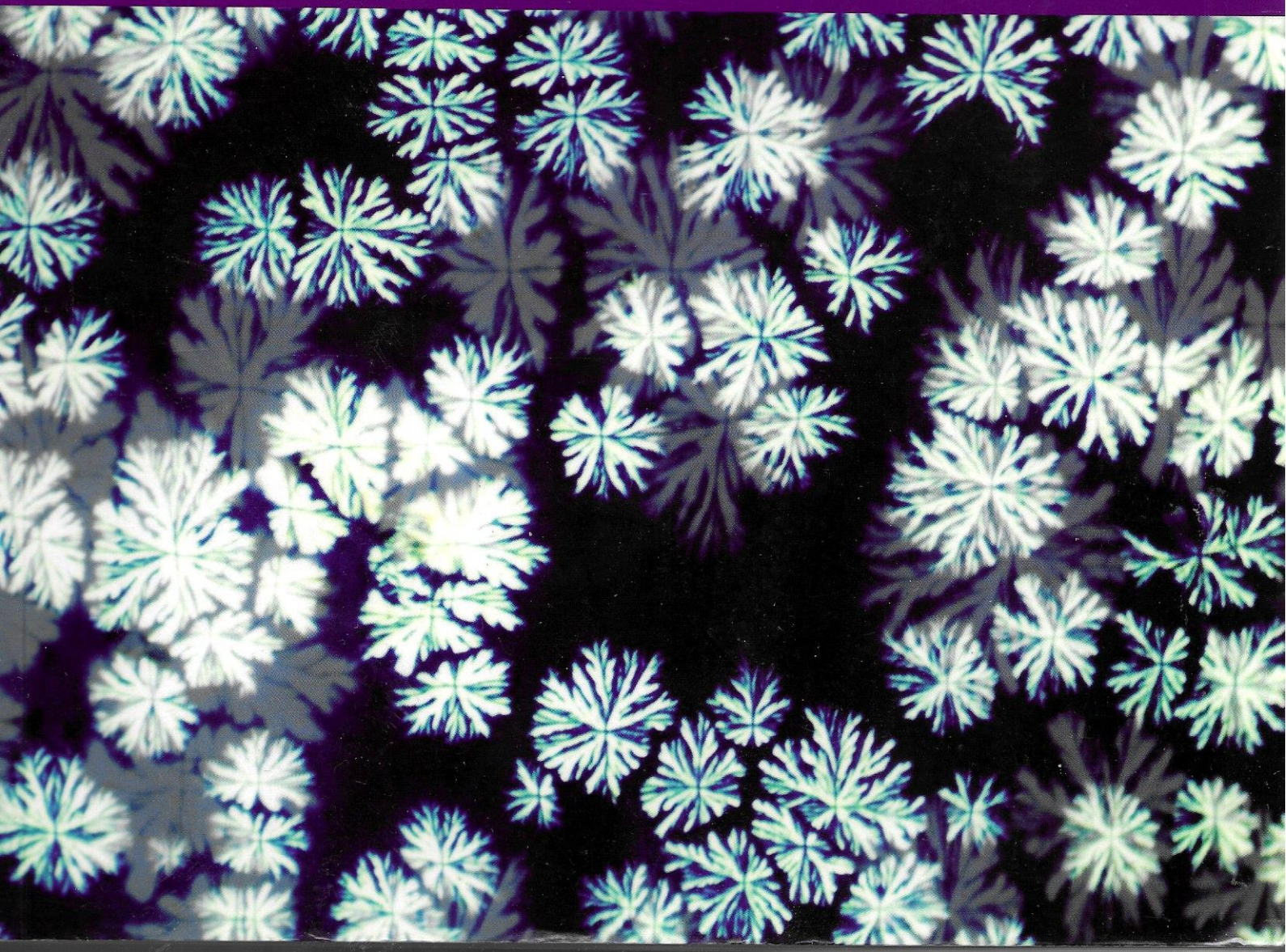
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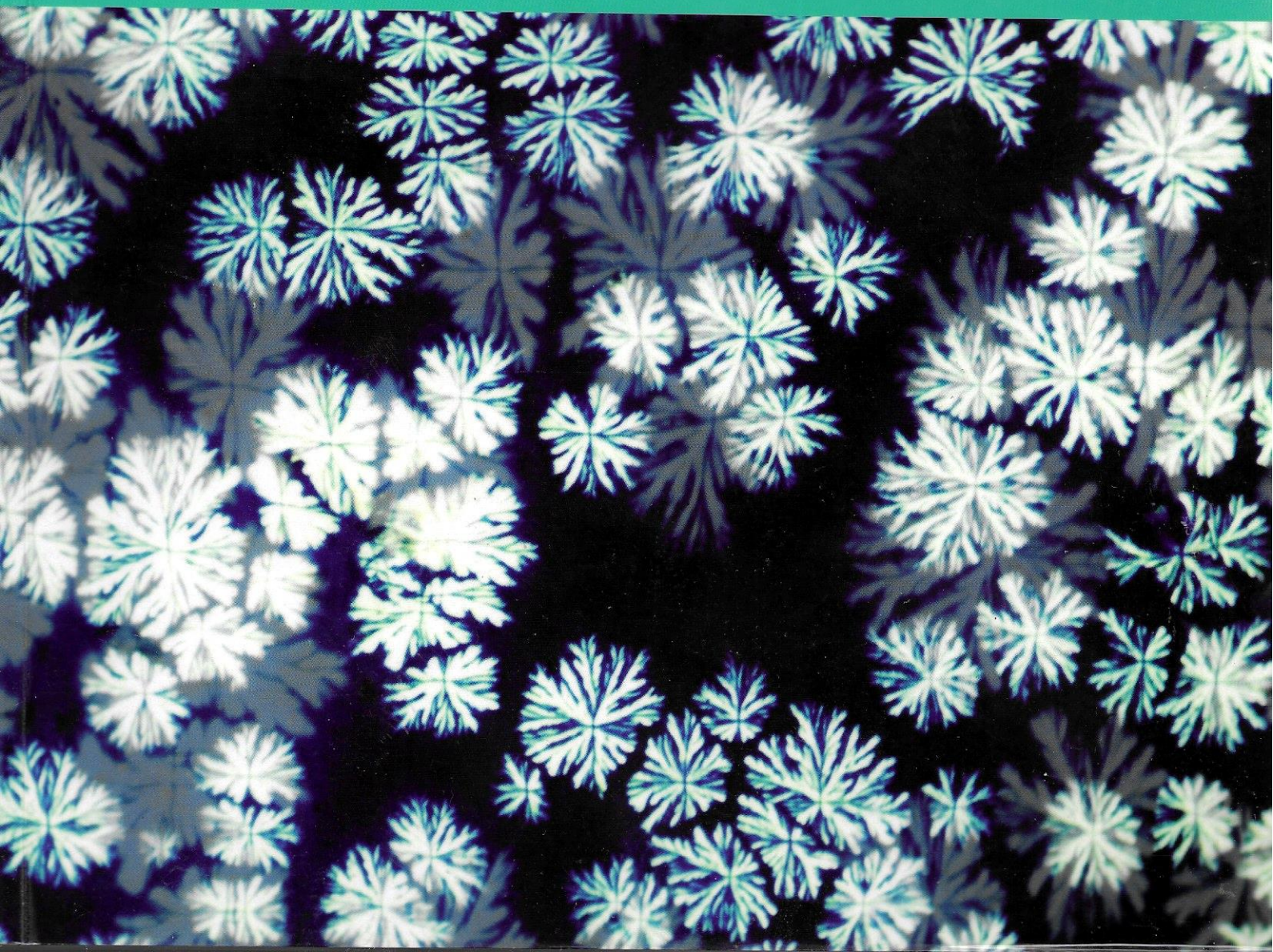
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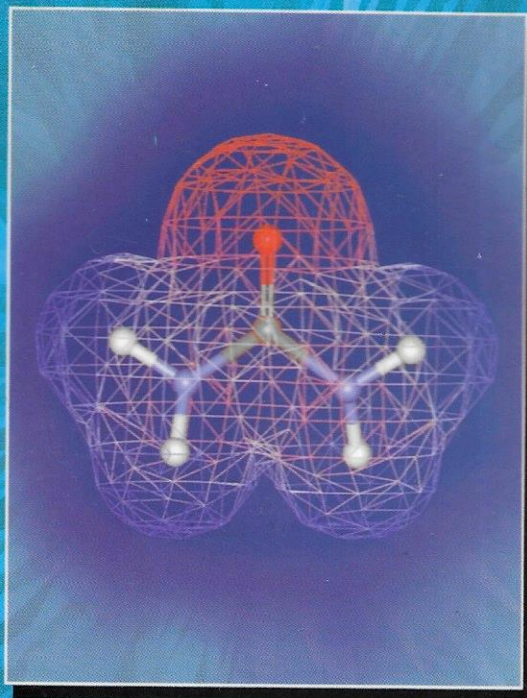
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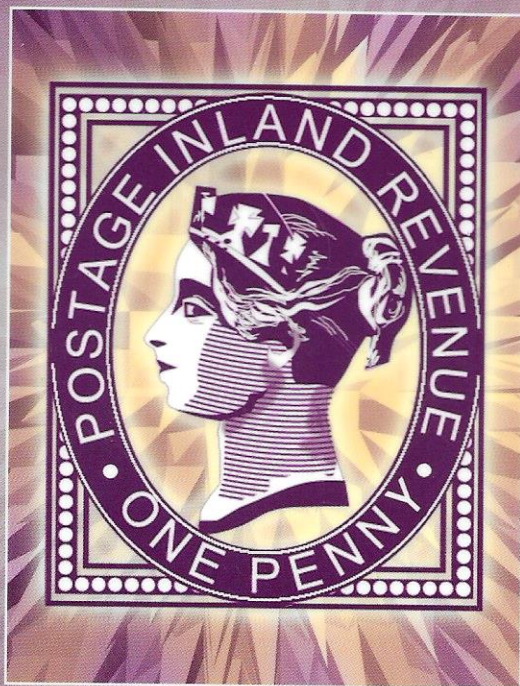
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Molecular Modelling and Bonding

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**Alkenes and
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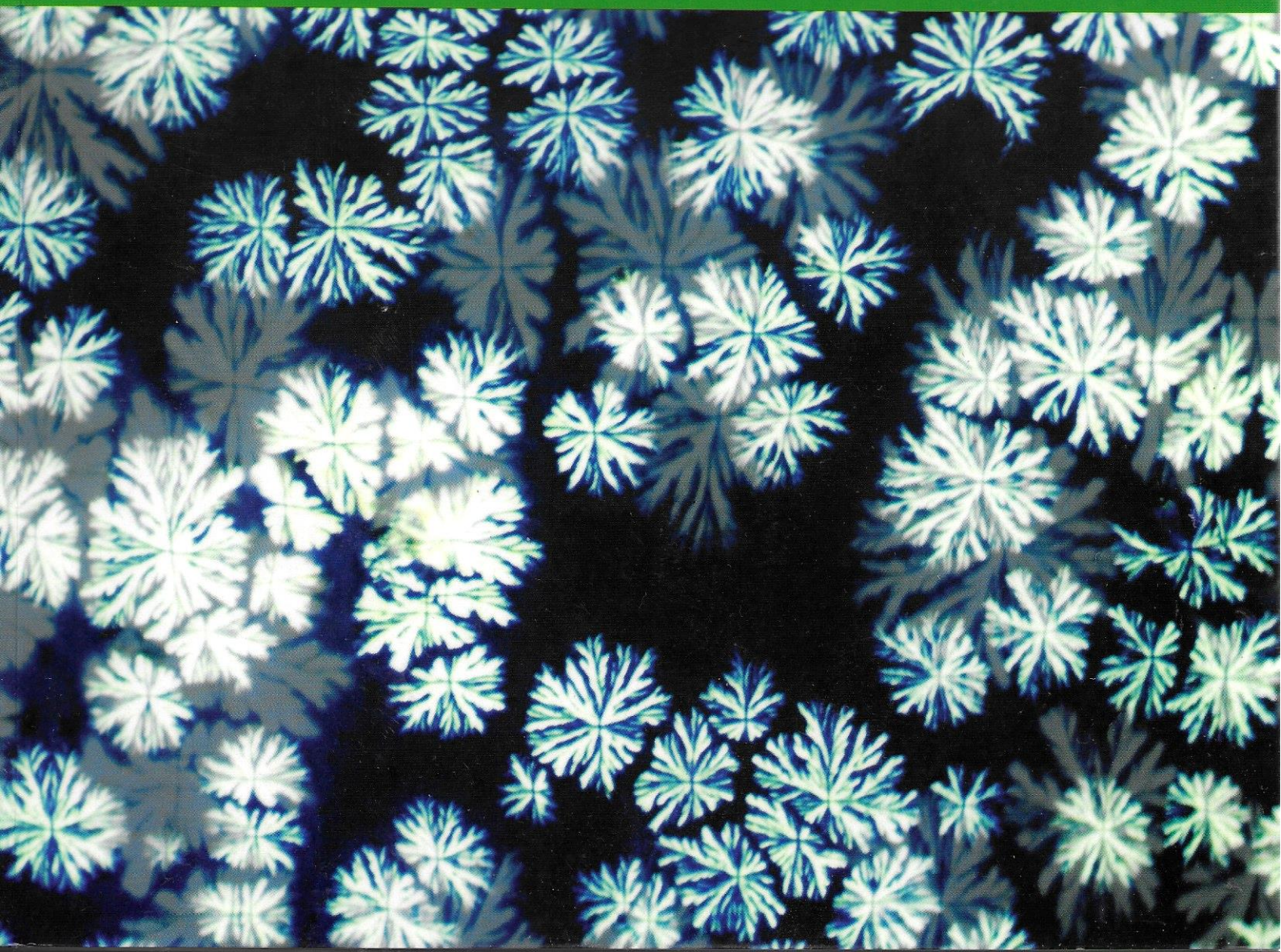
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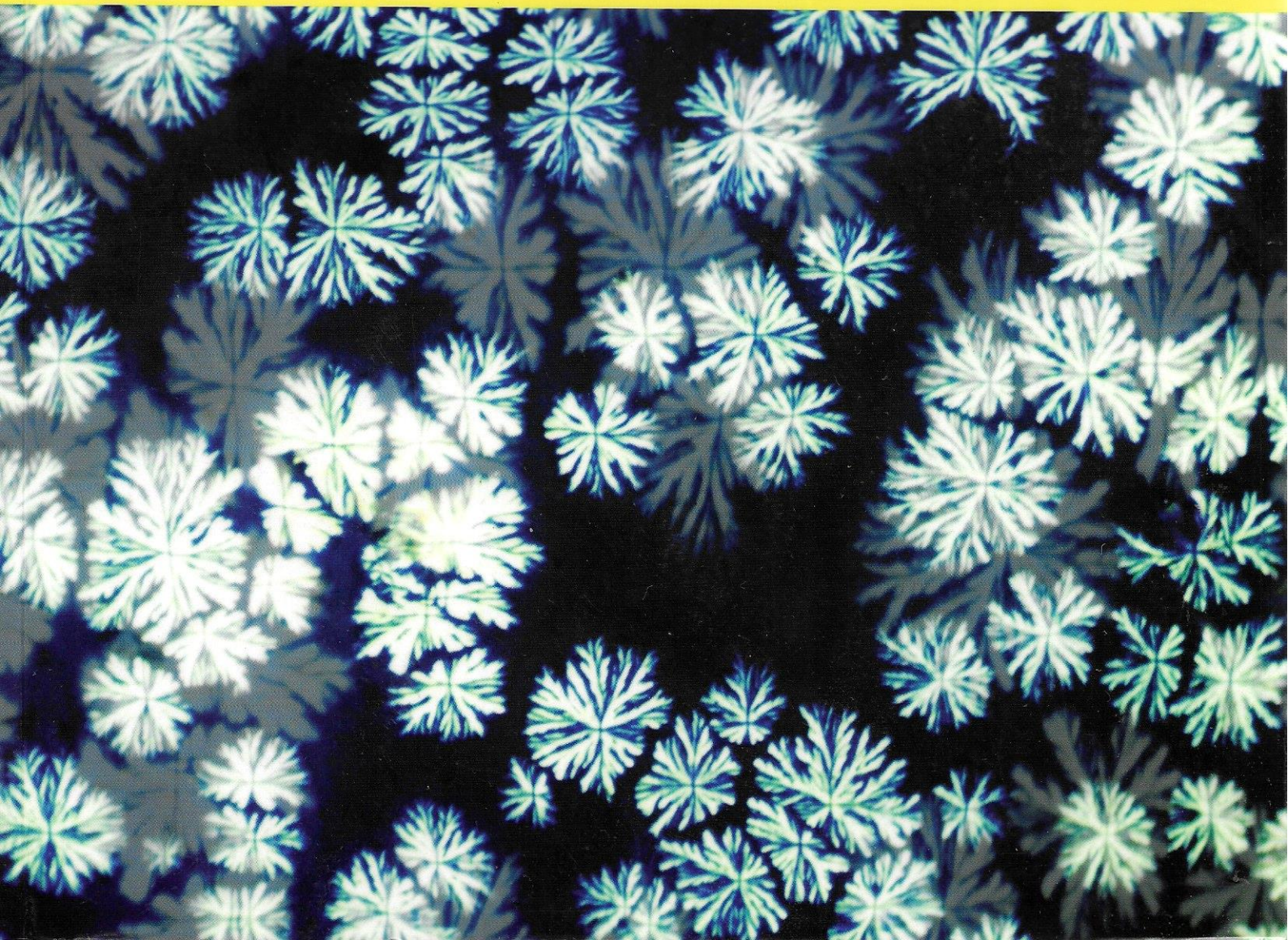
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Elements of the p Block

Edited by Charlie Harding, Rob Janes and David Johnson



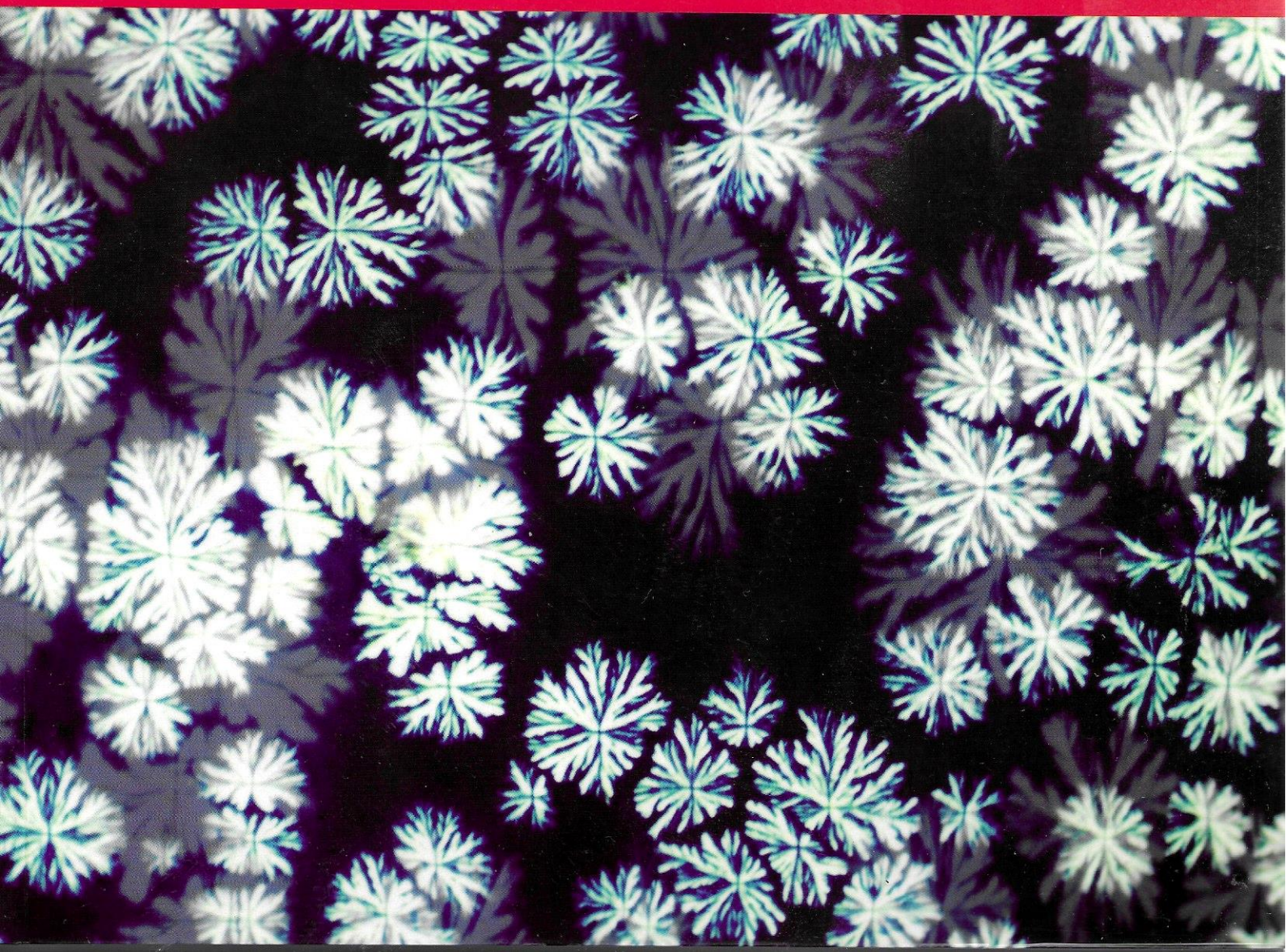
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Mechanism and Synthesis

Edited by Peter Taylor



SXR205 Science: A Level Two Course



Exploring the Molecular World study book

BASIC ORGANIC CHEMISTRY

A Mechanistic Approach

J. M. TEDDER · A. NECHVATAL

JOHN WILEY & SONS
LONDON · NEW YORK · SYDNEY · TORONTO



Open University Set Book

BASIC ORGANIC CHEMISTRY

A Mechanistic Approach

J. M. Tedder and A. Nechvatal

Traditionally organic chemistry is taught as a list of preparations and properties of different classes of compounds. The student is presented with a large collection of facts in a sequence necessarily unsuitable for an understanding of the subject. Generalizations of doubtful validity have to be introduced, and the chemistry of carbon appears to be quite unrelated to that of the remaining 91 naturally occurring elements.

This book is a complete departure from the traditional approach. The subject is developed logically from an elementary knowledge of general and inorganic chemistry, each new step being dependent only on what has gone before. The authors have avoided the pitfalls usually associated with a theoretical approach by giving a few questions at the end of each chapter illustrating 'useful reactions', and by including methods of preparation after the reactions themselves have been discussed. Natural products have not been neglected, but the authors deal with these at the end of the book when the student is in a position to appreciate the structures and reactions involved.

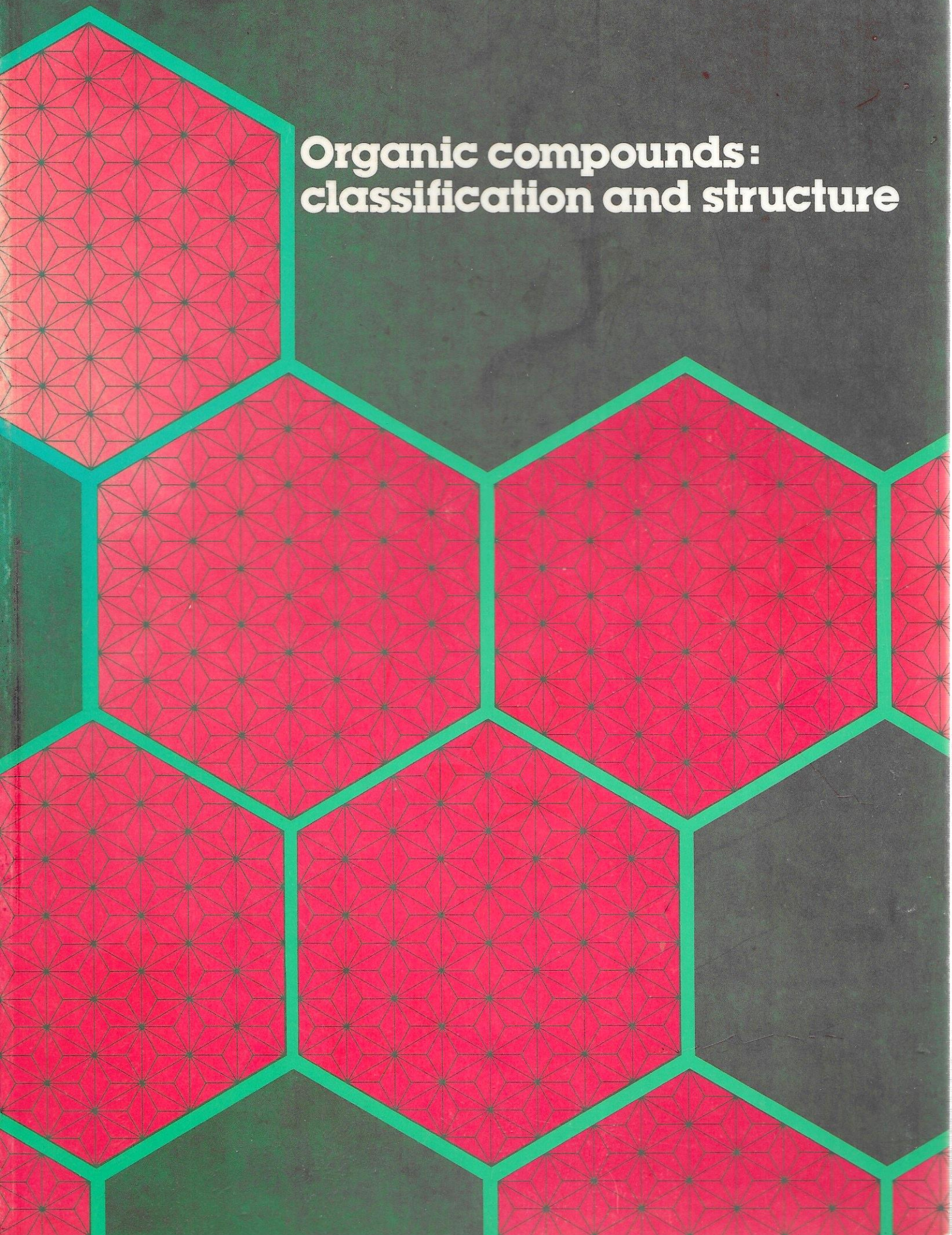
John Wiley and Sons

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ISBN 0 471 85011 X

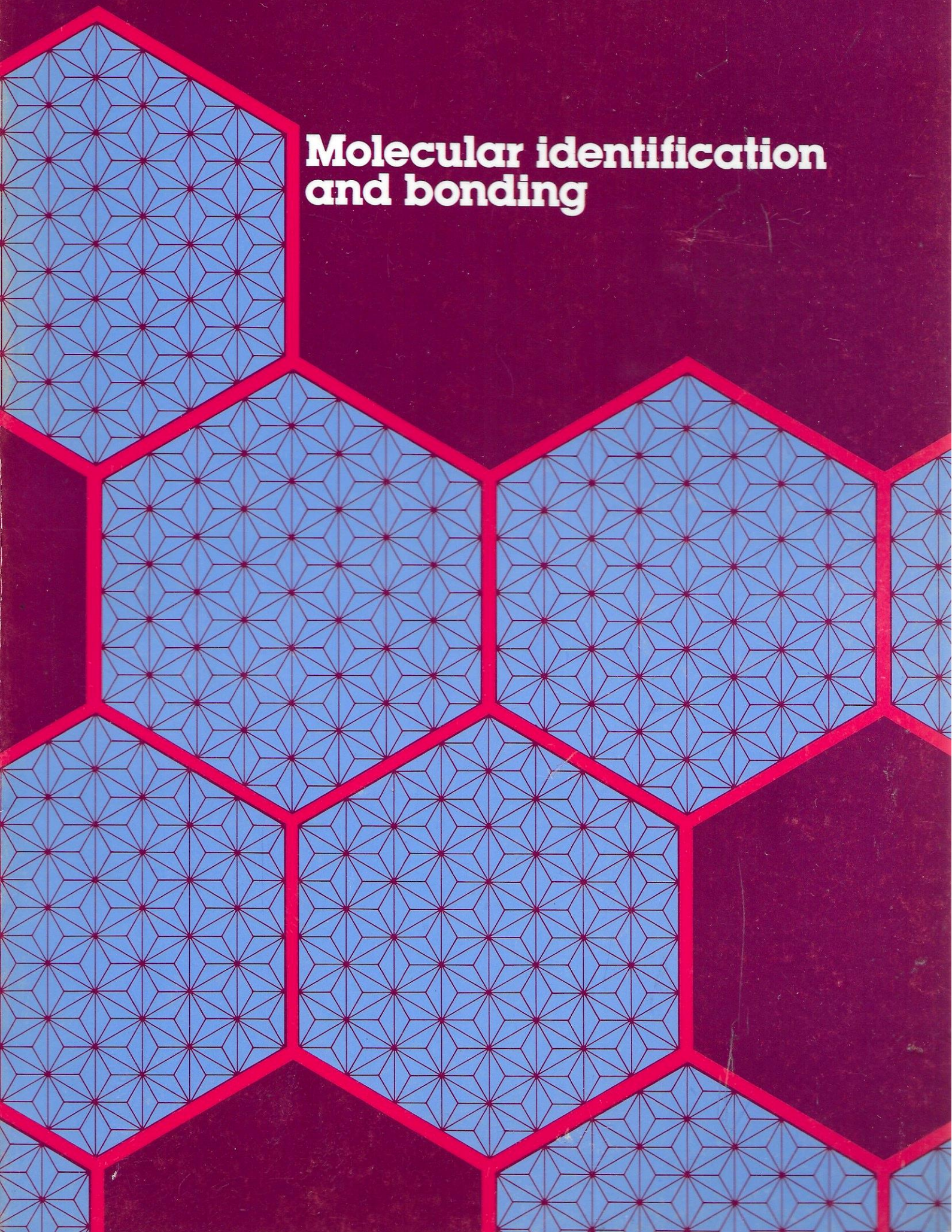


Organic compounds: classification and structure



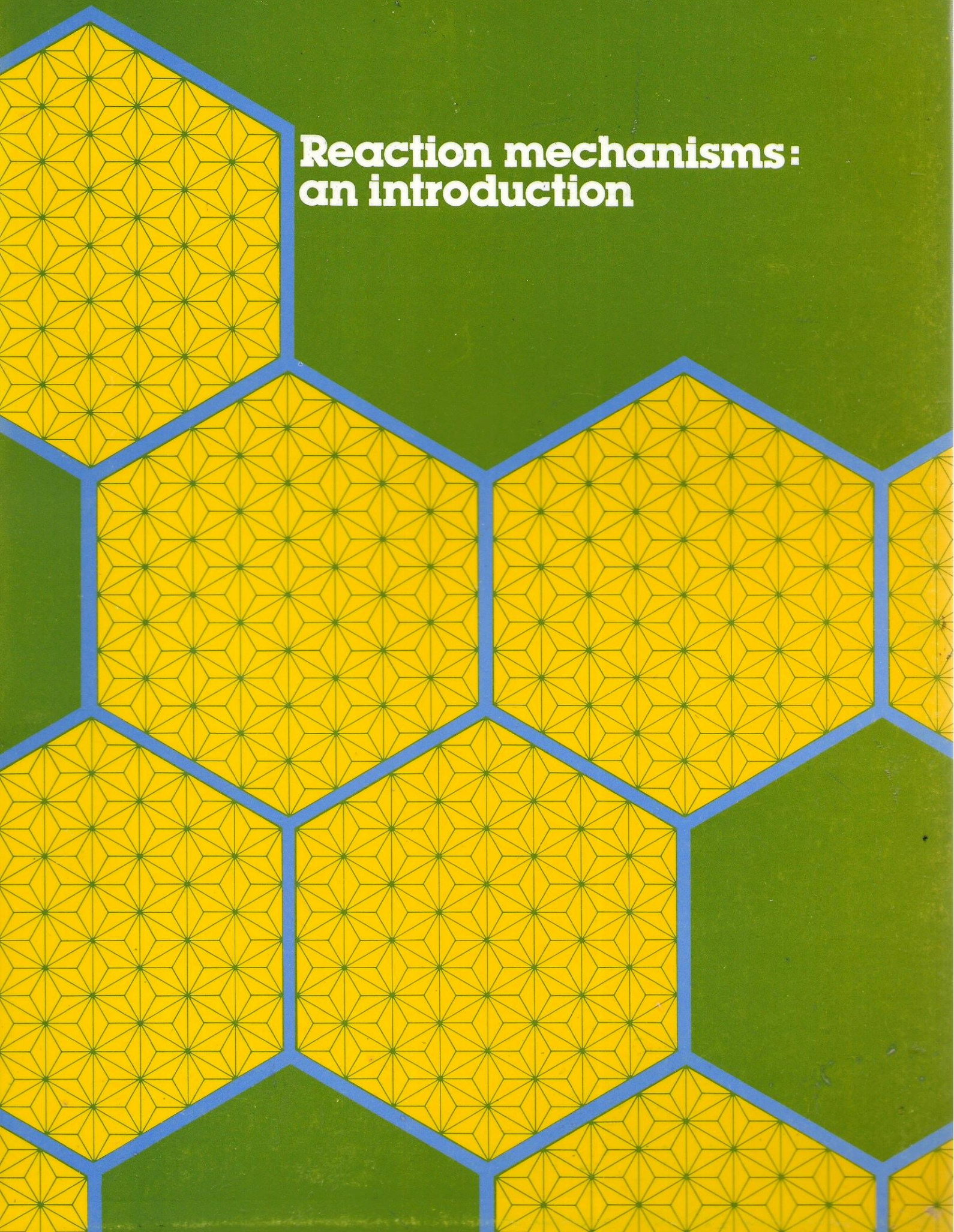


Molecular identification and bonding





Reaction mechanisms: an introduction

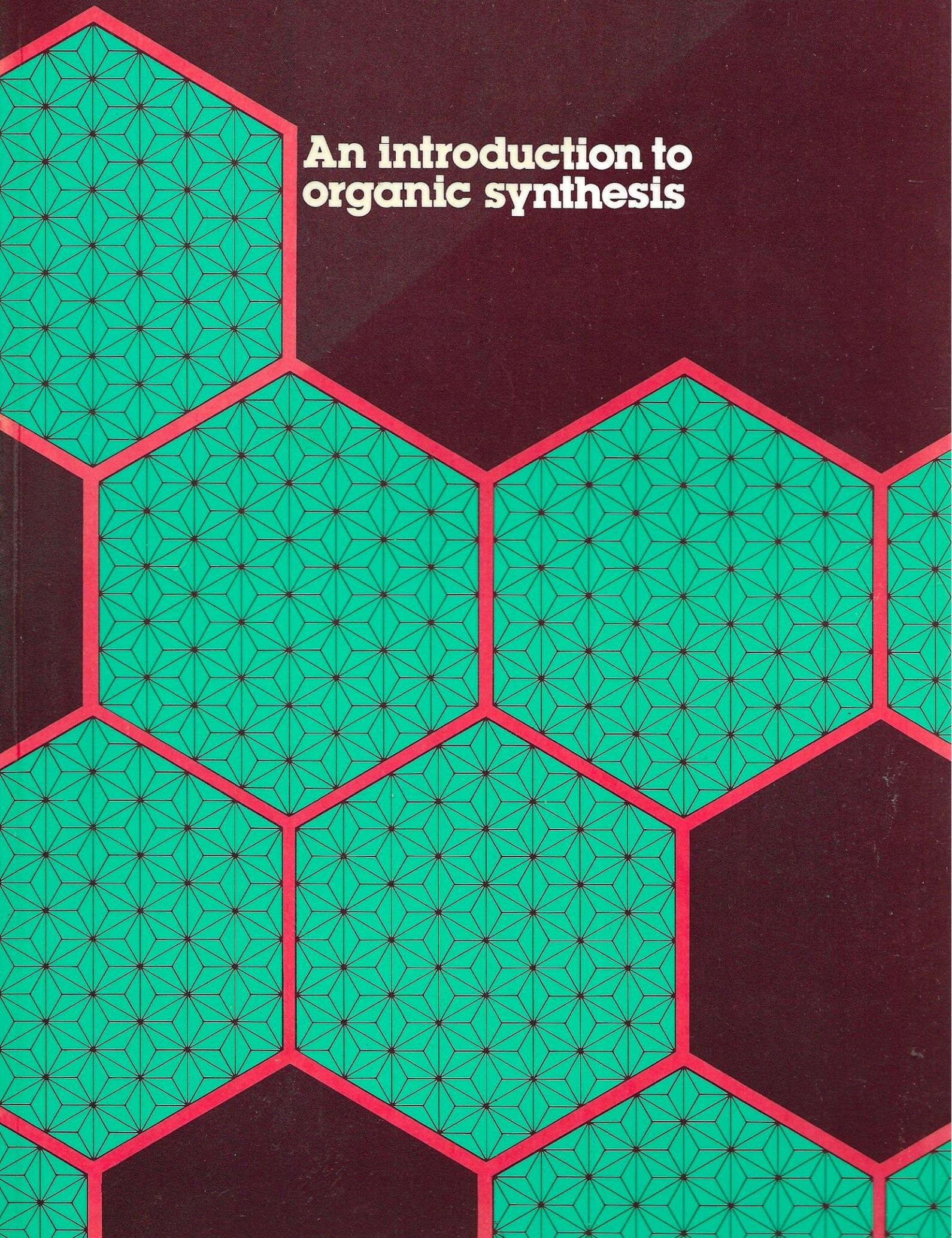




Reaction mechanisms: applications

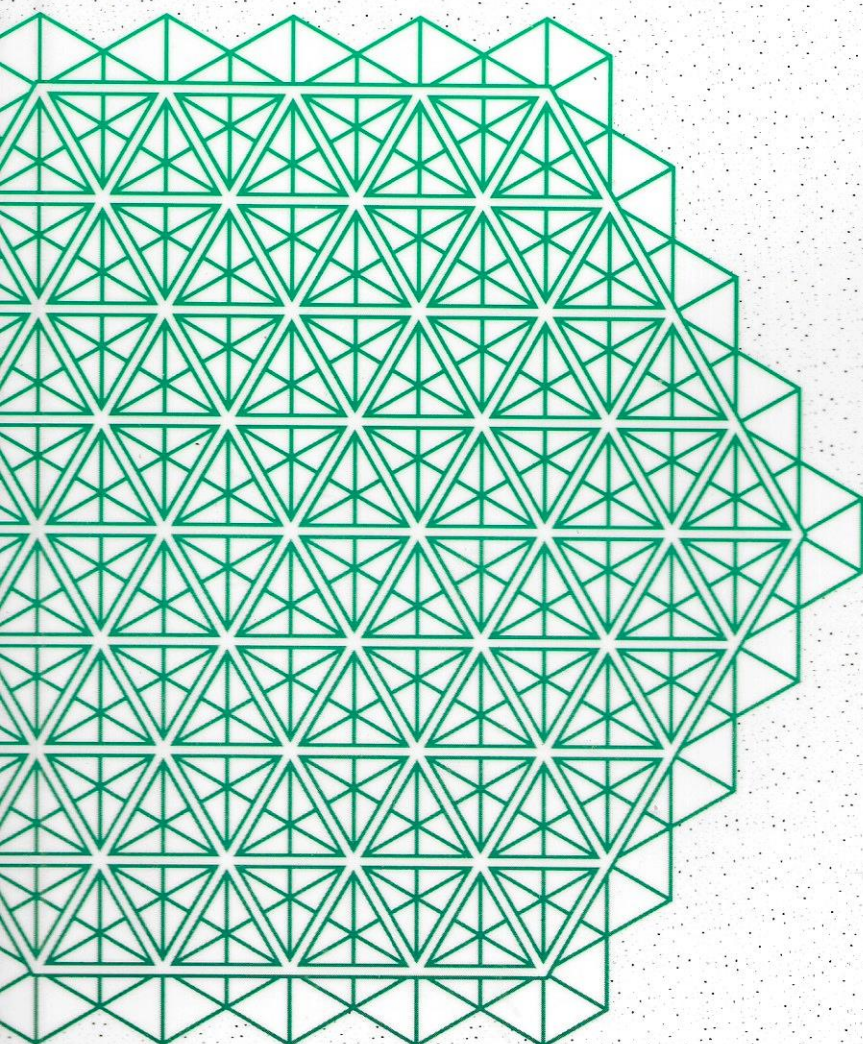


An introduction to organic synthesis



INORGANIC CHEMISTRY:

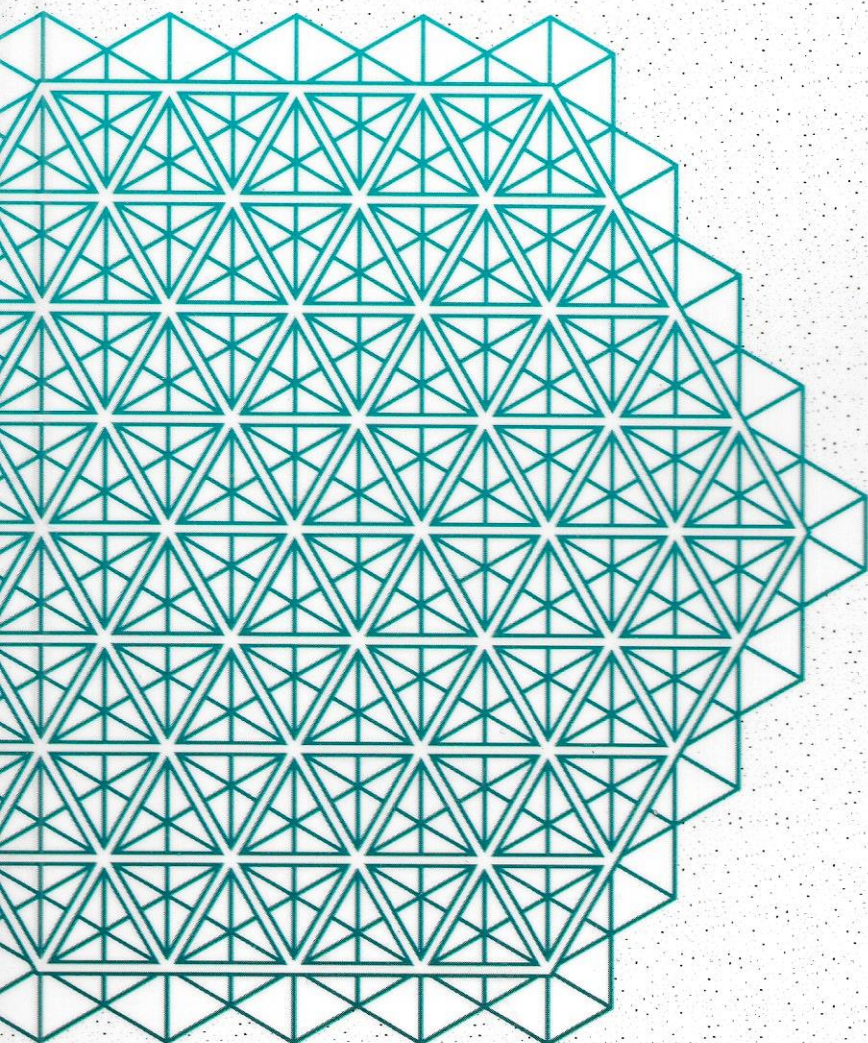
CONCEPTS AND CASE STUDIES



BLOCK 1 THERMODYNAMICS
AND THE REACTIONS OF METALS

INORGANIC CHEMISTRY:

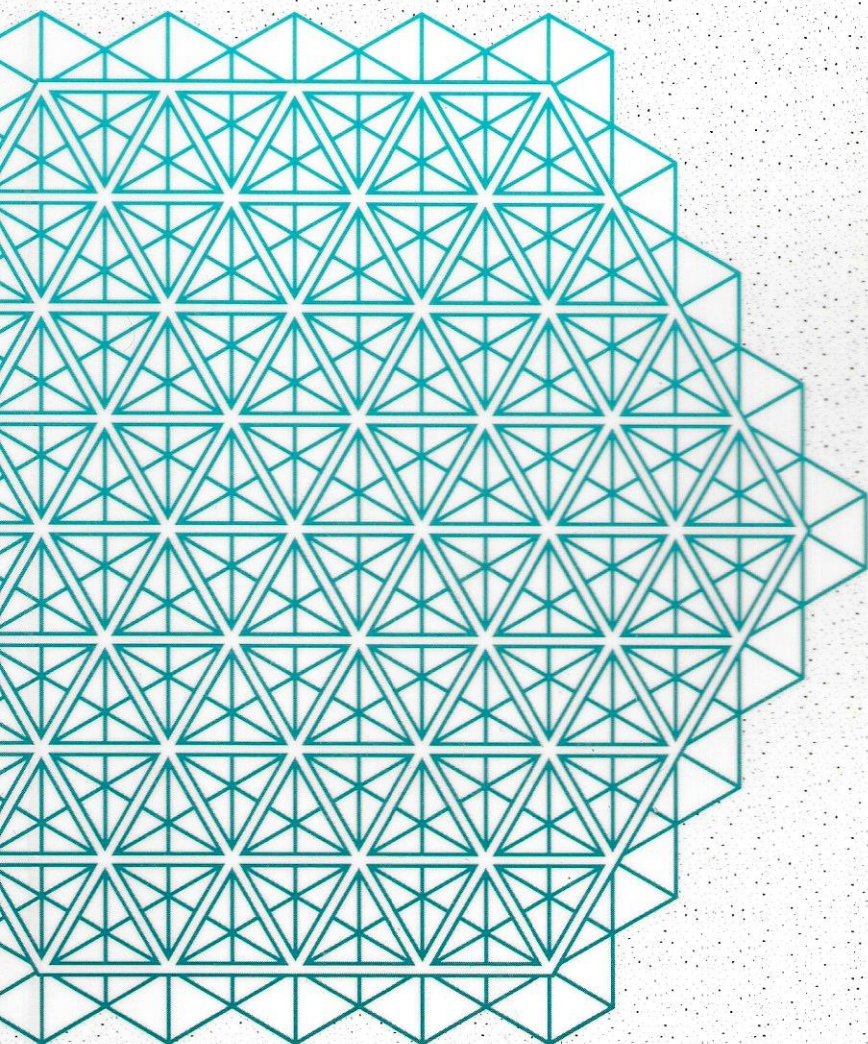
CONCEPTS AND CASE STUDIES



BLOCK 2 THE CRYSTALLINE STATE

INORGANIC CHEMISTRY:

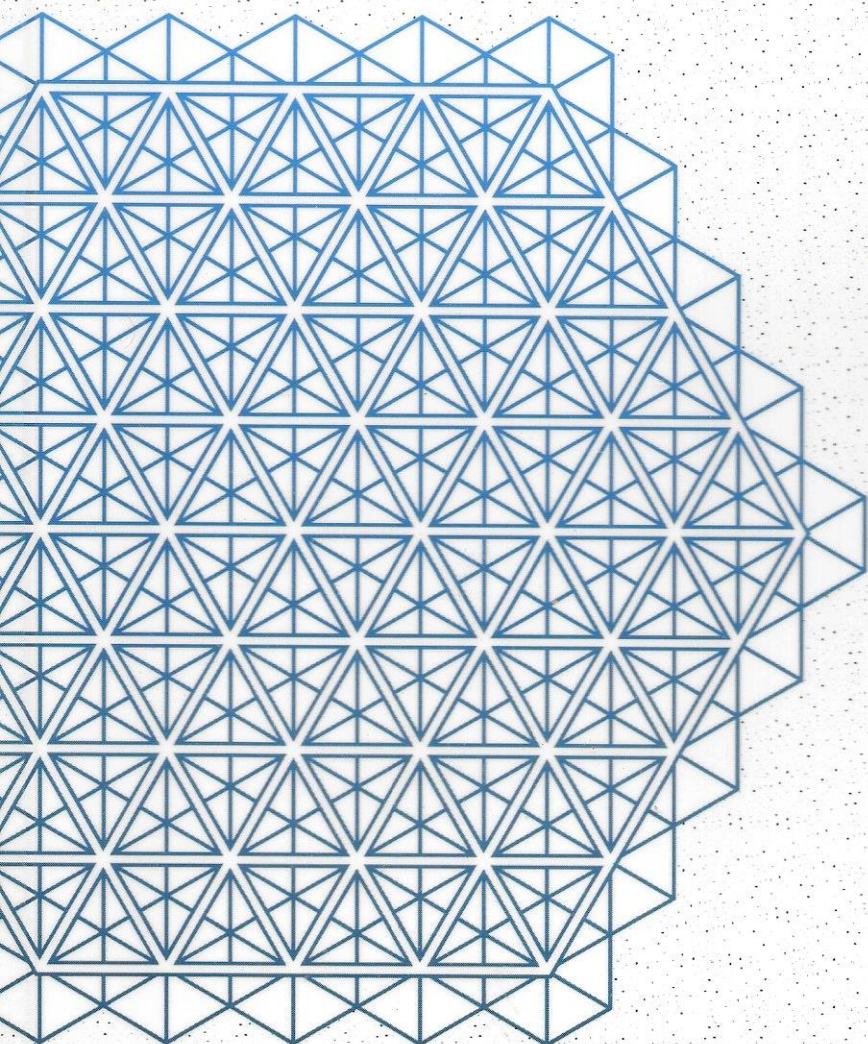
CONCEPTS AND CASE STUDIES



BLOCK 3 INTRODUCTION TO
DESCRIPTIVE CHEMISTRY: THE ALKALI
AND ALKALINE EARTH METALS

INORGANIC CHEMISTRY:

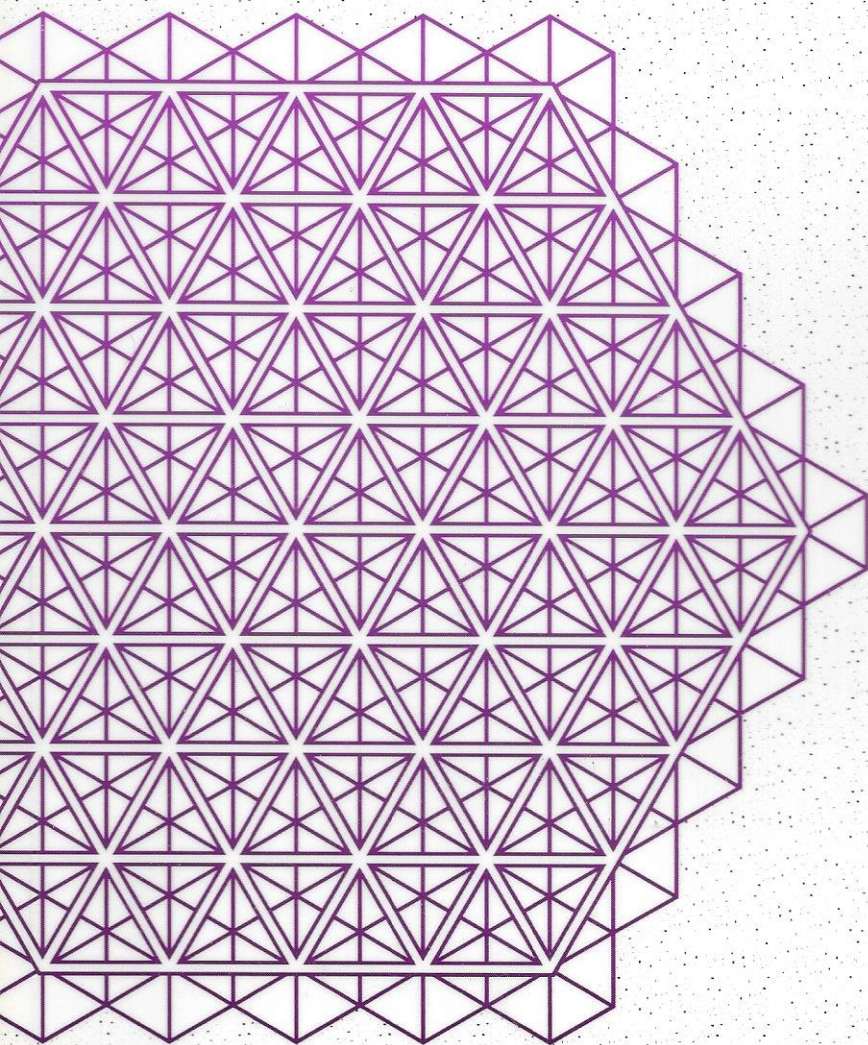
CONCEPTS AND CASE STUDIES



BLOCK 4
MOLECULES GREAT AND SMALL

INORGANIC CHEMISTRY:

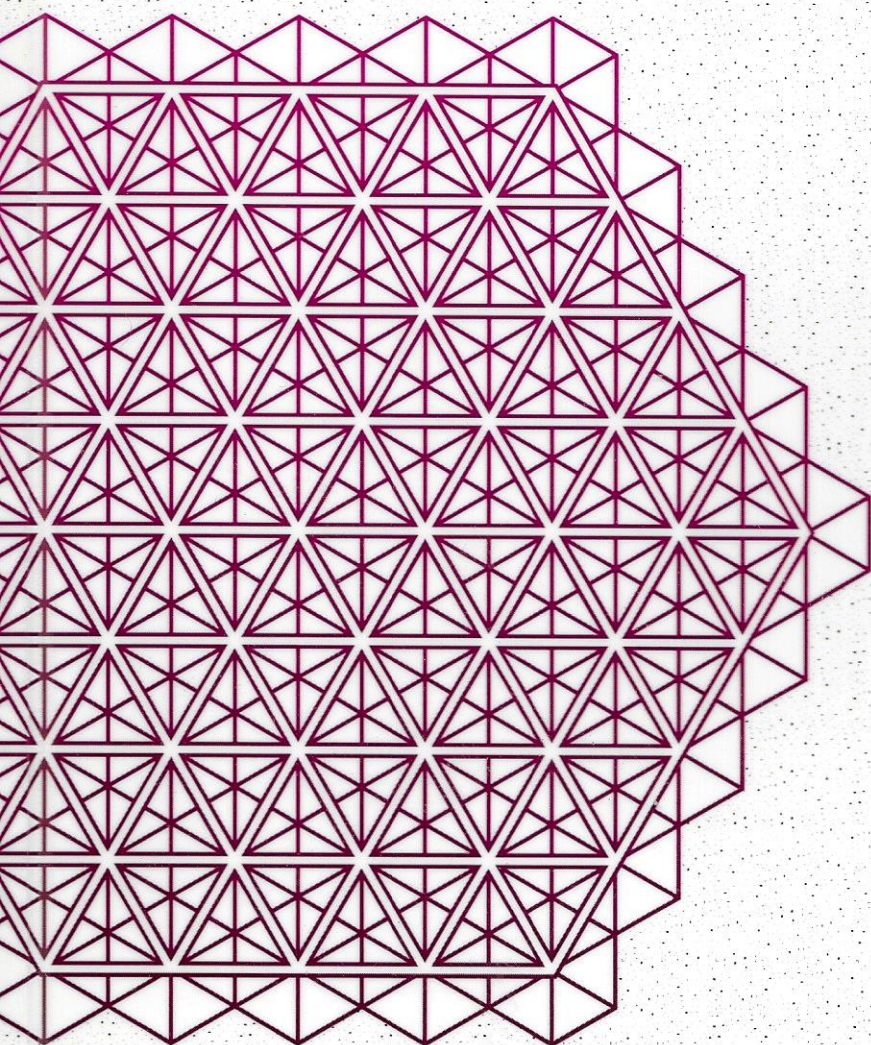
CONCEPTS AND CASE STUDIES



BLOCK 5 THE CHEMISTRY OF
HYDROGEN, THE HALOGENS
AND THE NOBLE GASES

INORGANIC CHEMISTRY:

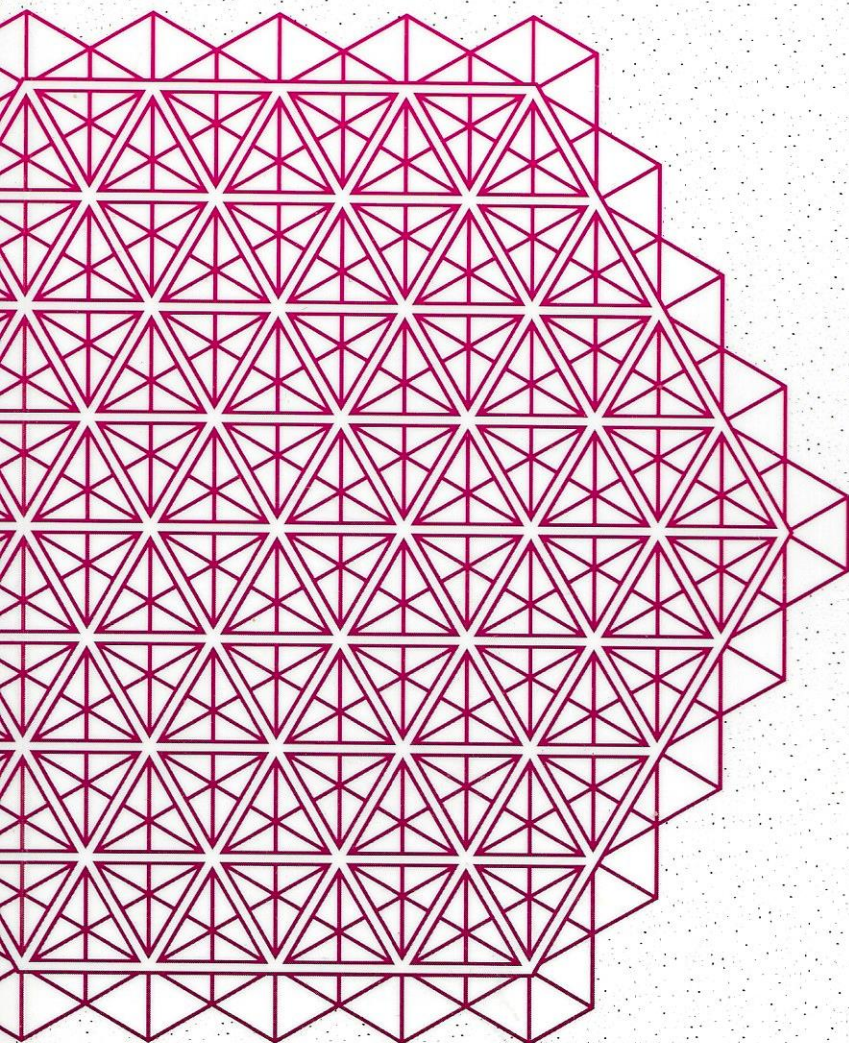
CONCEPTS AND CASE STUDIES



BLOCK 6
SPECTROSCOPIC METHODS
IN INORGANIC CHEMISTRY

INORGANIC CHEMISTRY:

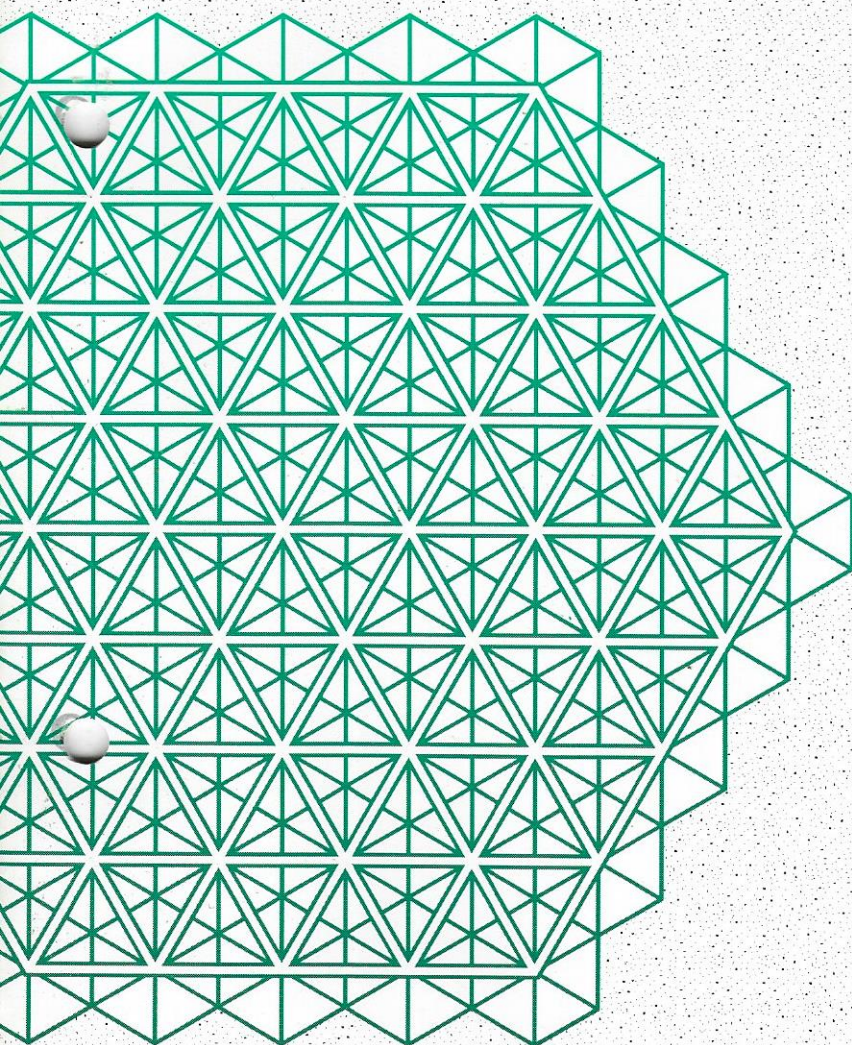
CONCEPTS AND CASE STUDIES



BLOCK 7
THE CHEMISTRY OF GROUPS III–VI

INORGANIC CHEMISTRY:

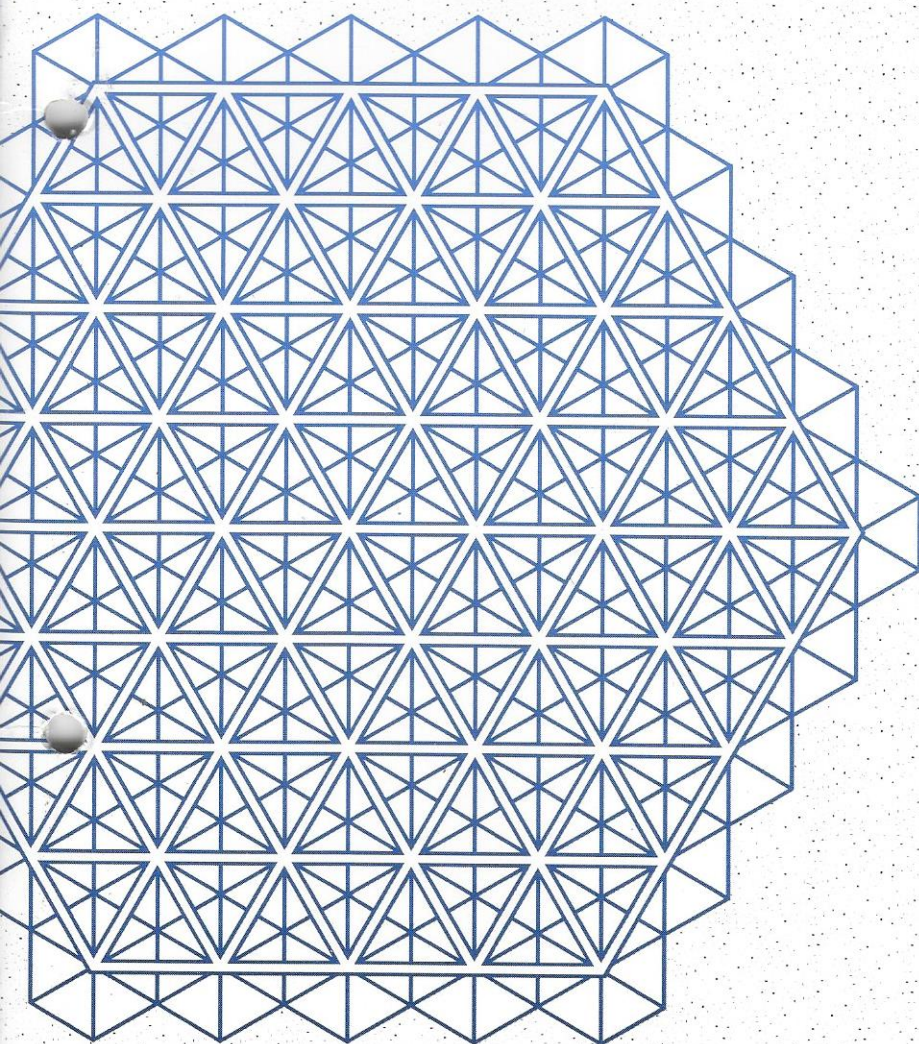
CONCEPTS AND CASE STUDIES



CASE STUDY 1 THERMOCHEMICAL HYDROGEN GENERATION

INORGANIC CHEMISTRY:

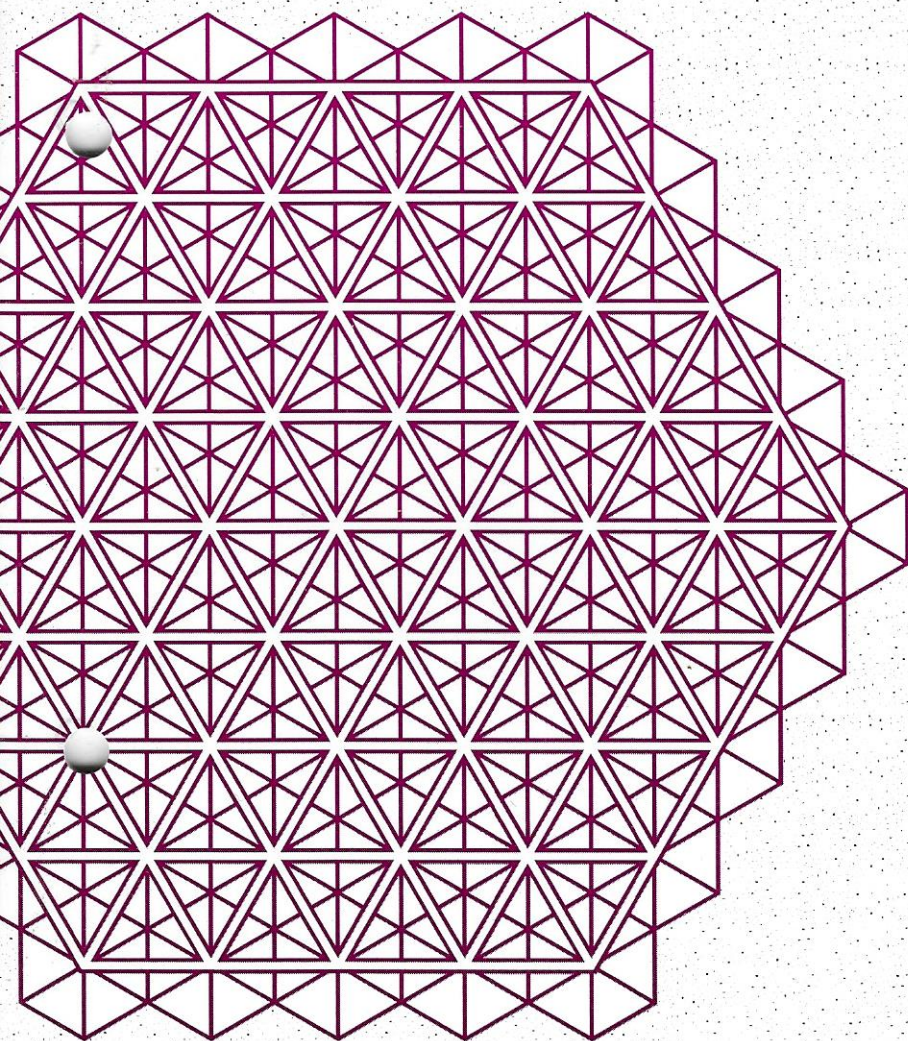
CONCEPTS AND CASE STUDIES



CASE STUDY 2
SOLAR ENERGY CONVERSION

INORGANIC CHEMISTRY:

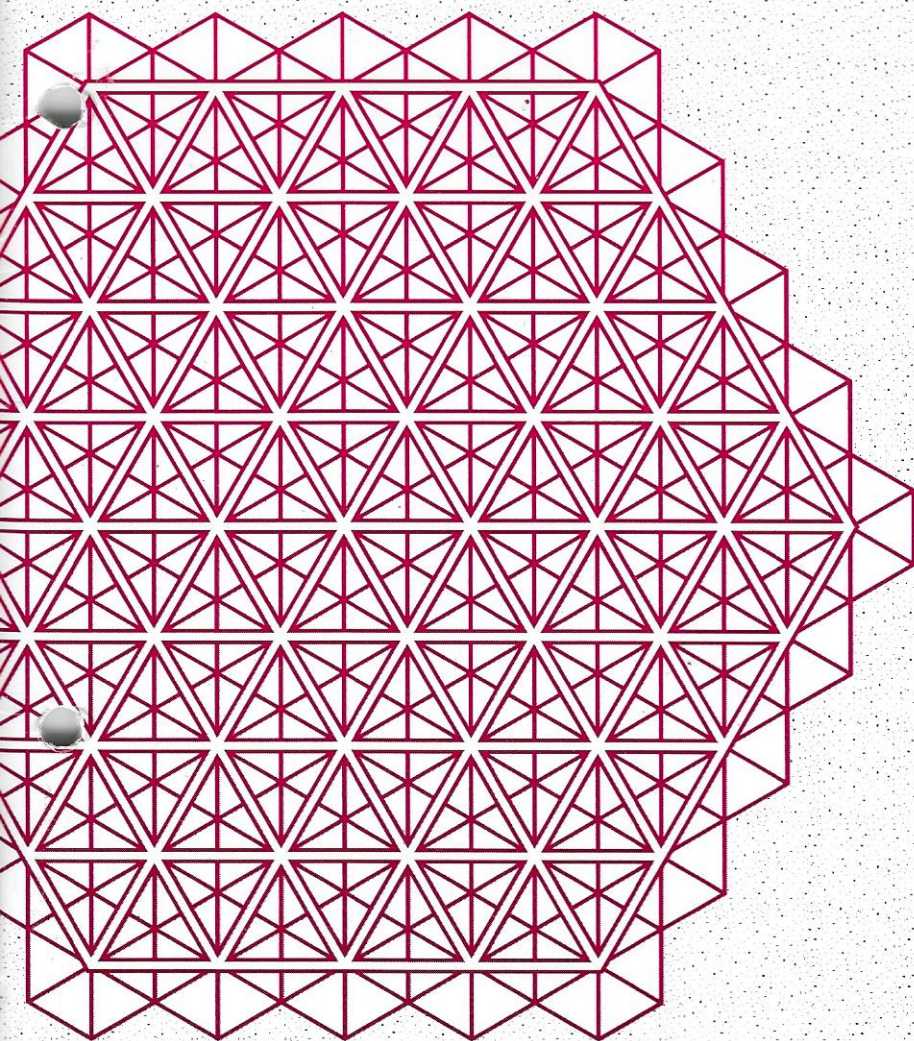
CONCEPTS AND CASE STUDIES



CASE STUDY 3
MOLECULES IN SPACE

INORGANIC CHEMISTRY:

CONCEPTS AND CASE STUDIES



CASE STUDY 4
SULPHUR, ACID DEPOSITION
AND LAKE ACIDIFICATION

S342 Blocks 1 and 2



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PHYSICAL CHEMISTRY

PRINCIPLES OF CHEMICAL CHANGE

BLOCK 1

SCOPE AND LIMITATIONS OF THE
THERMODYNAMIC APPROACH

BLOCK 2

AN INTRODUCTION TO CHEMICAL KINETICS

S342 Blocks 3 and 4



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PHYSICAL CHEMISTRY

PRINCIPLES OF CHEMICAL CHANGE

BLOCK 3
REACTION MECHANISMS

BLOCK 4
HOMOGENEOUS CATALYSIS

S342 Block 5

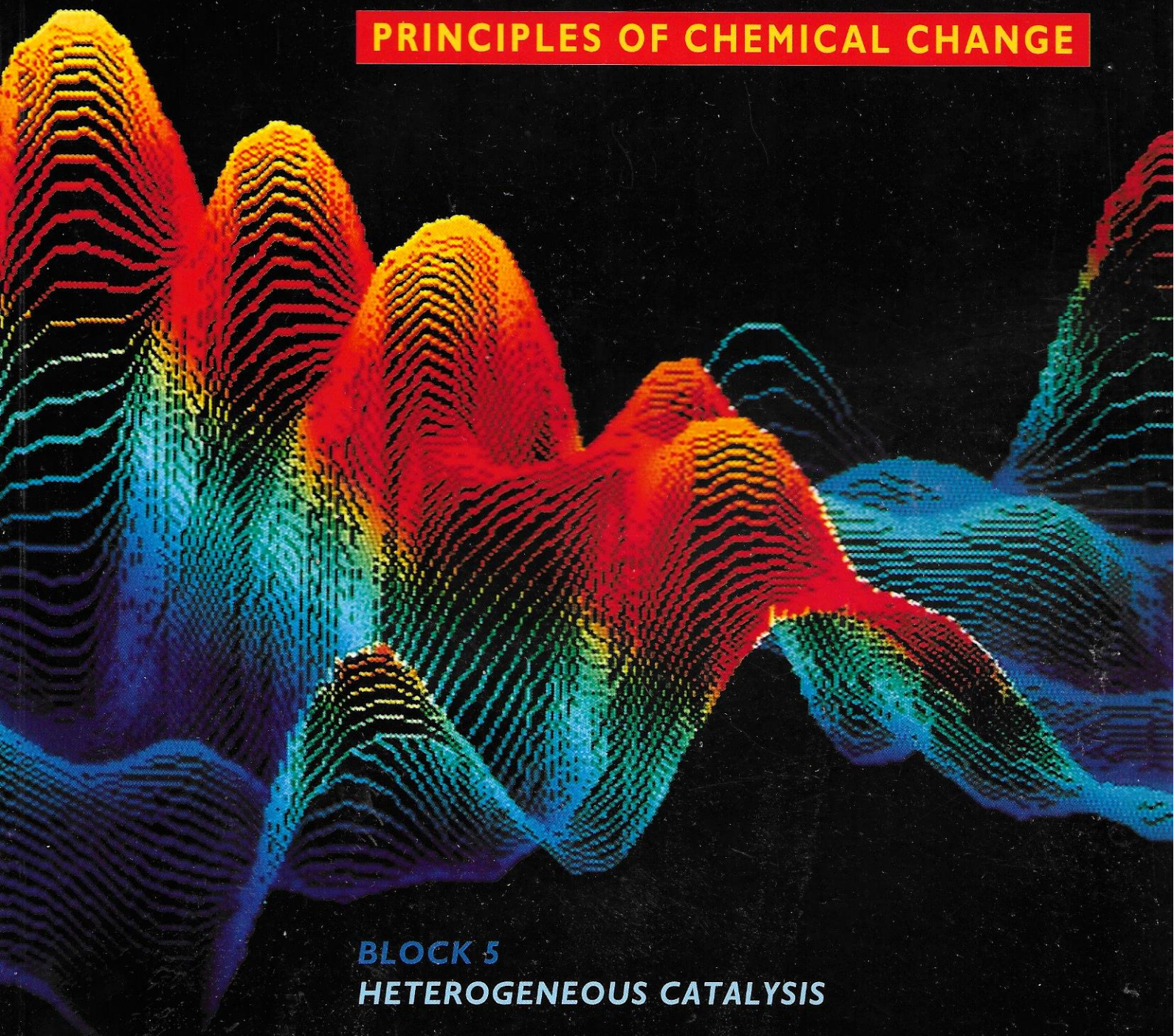


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PHYSICAL CHEMISTRY

PRINCIPLES OF CHEMICAL CHANGE



BLOCK 5
HETEROGENEOUS CATALYSIS

S342 Block 6

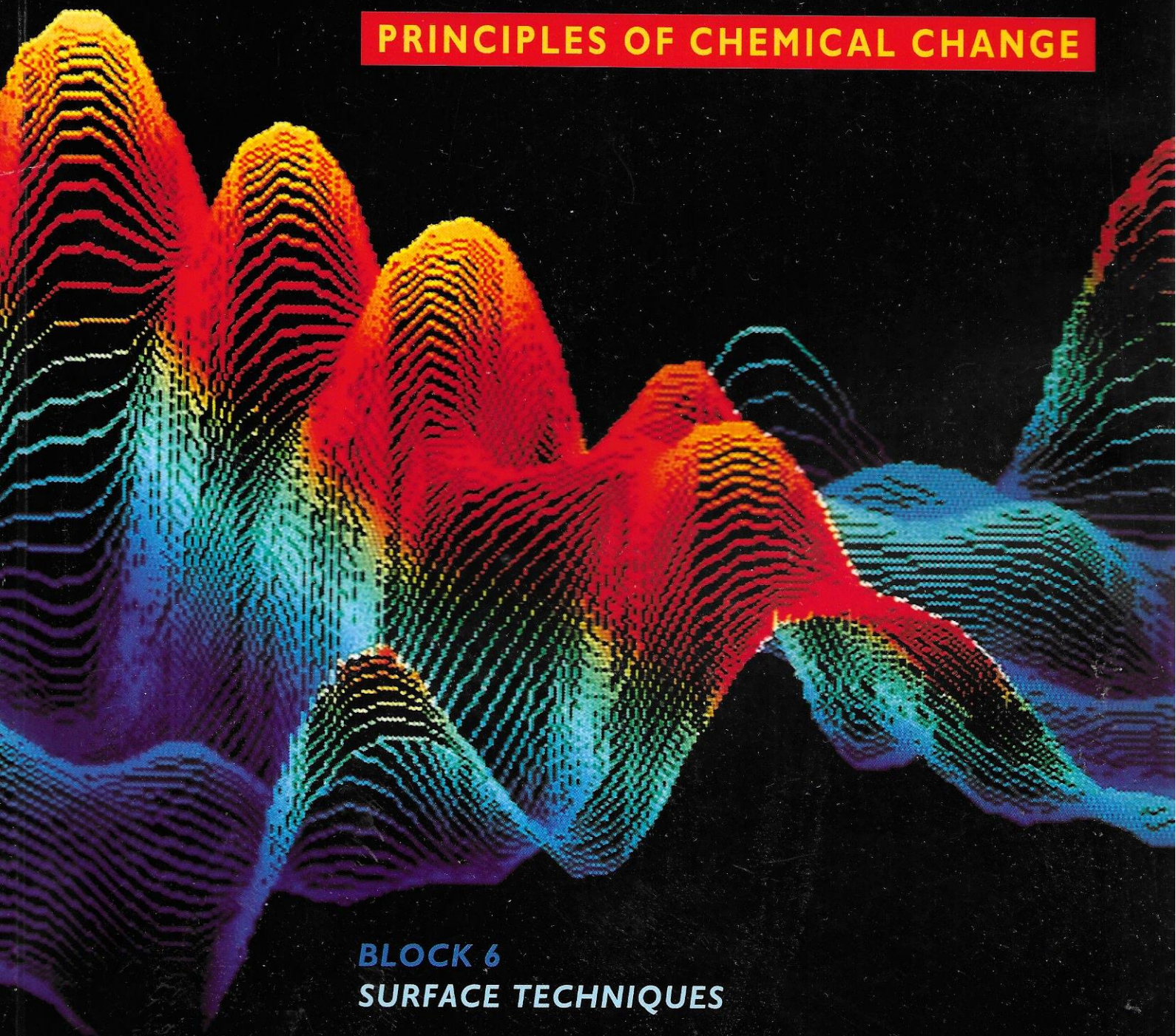


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PRINCIPLES OF CHEMICAL CHANGE



BLOCK 6
SURFACE TECHNIQUES

S342 Block 7

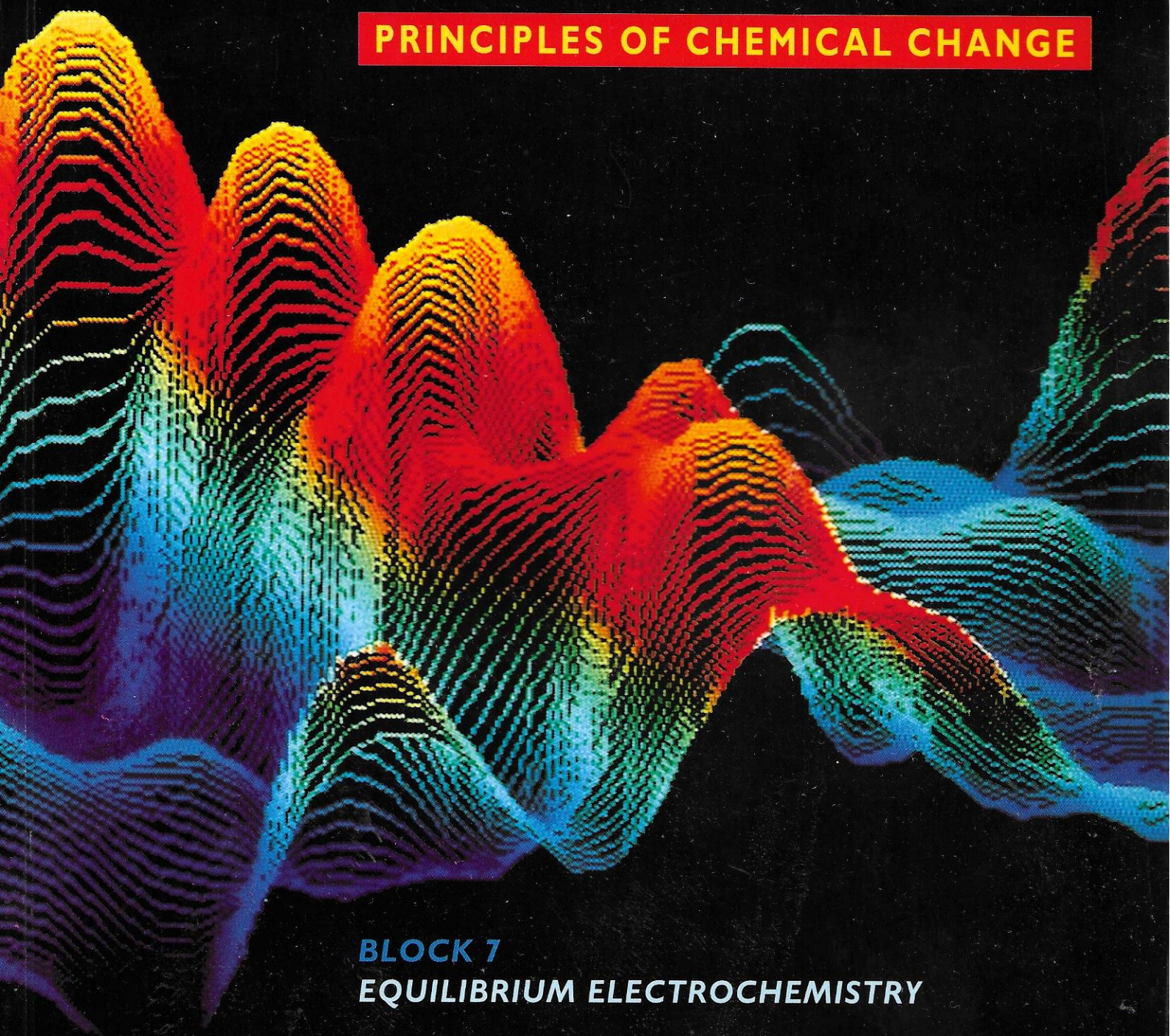


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PRINCIPLES OF CHEMICAL CHANGE



BLOCK 7

EQUILIBRIUM ELECTROCHEMISTRY

2003

S342 Block 8

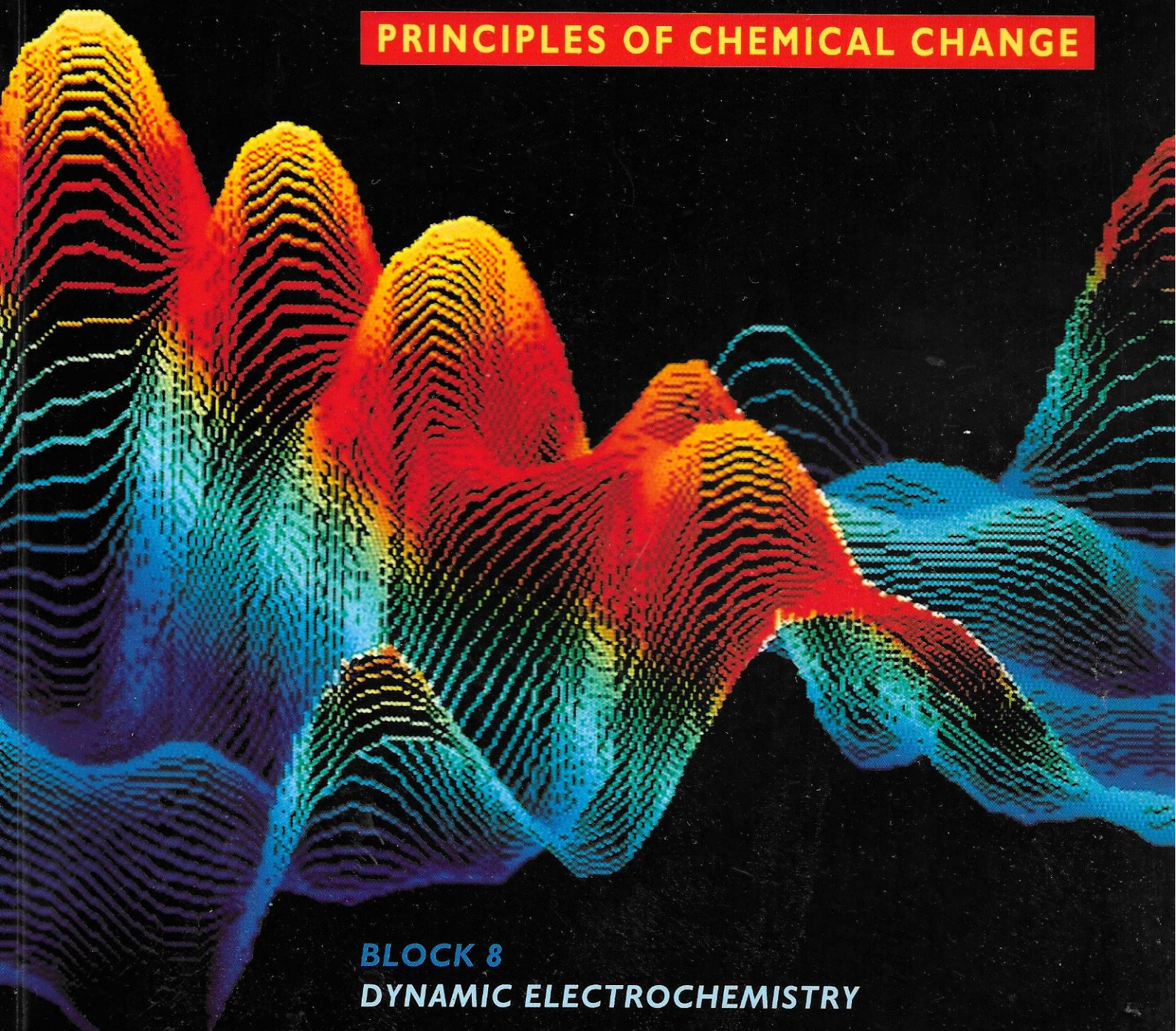


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PRINCIPLES OF CHEMICAL CHANGE



BLOCK 8

DYNAMIC ELECTROCHEMISTRY

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S343 **CHEMISTRY**
INORGANIC

Block 1

**INTRODUCING THE
TRANSITION ELEMENTS**

.....

S343 **CHEMISTRY**
INORGANIC

Block 2

**THEORY OF METAL-LIGAND
INTERACTION**

.....

Block 3

**TRANSITION-METAL
CHEMISTRY: THE
STABILITIES OF OXIDATION
STATES**

.....

S343
INORGANIC CHEMISTRY

Block 4

**STRUCTURE, GEOMETRY
AND SYNTHESIS OF
TRANSITION-METAL
COMPLEXES**

Block 5

**NUCLEAR MAGNETIC
RESONANCE
SPECTROSCOPY**

S343 **CHEMISTRY**
INORGANIC

S343 **CHEMISTRY**
INORGANIC

S343 **CHEMISTRY**
INORGANIC



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S343 **CHEMISTRY**
INORGANIC

Block 9

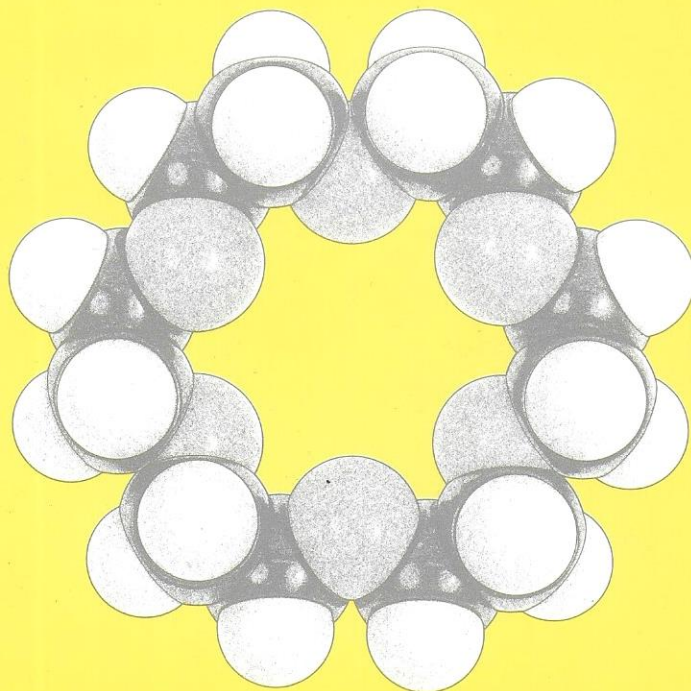
**ACTINIDE CHEMISTRY AND
THE NUCLEAR FUEL CYCLE**

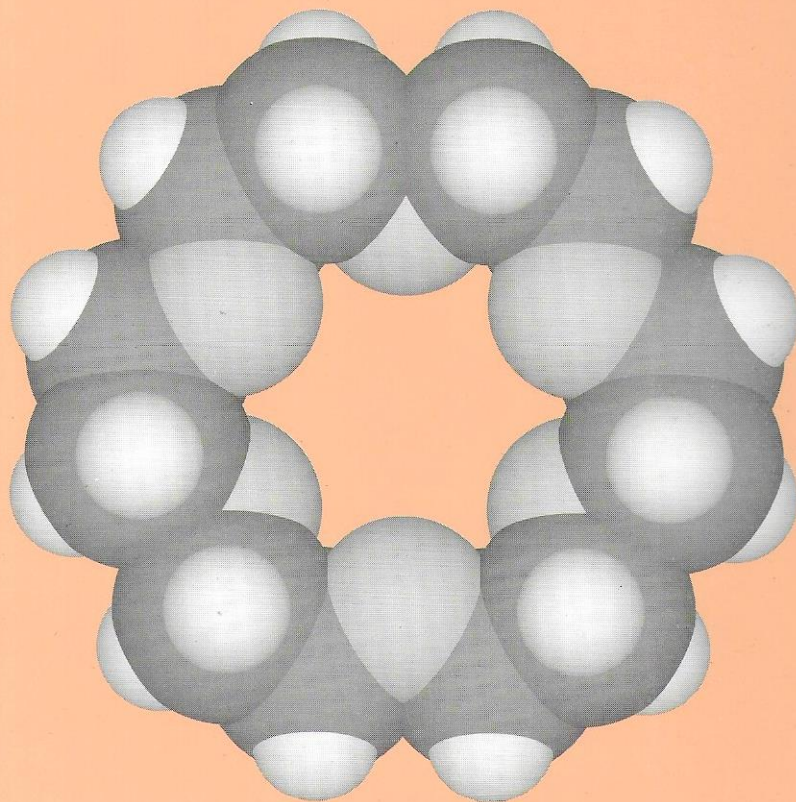
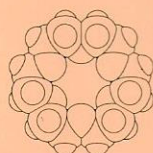
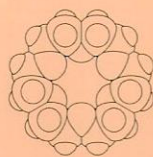
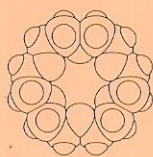
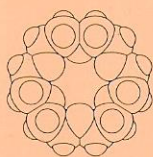
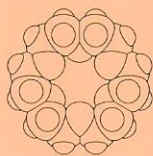
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— BLOCK 1 —

FUNDAMENTALS
of
ORGANIC
SYNTHESIS



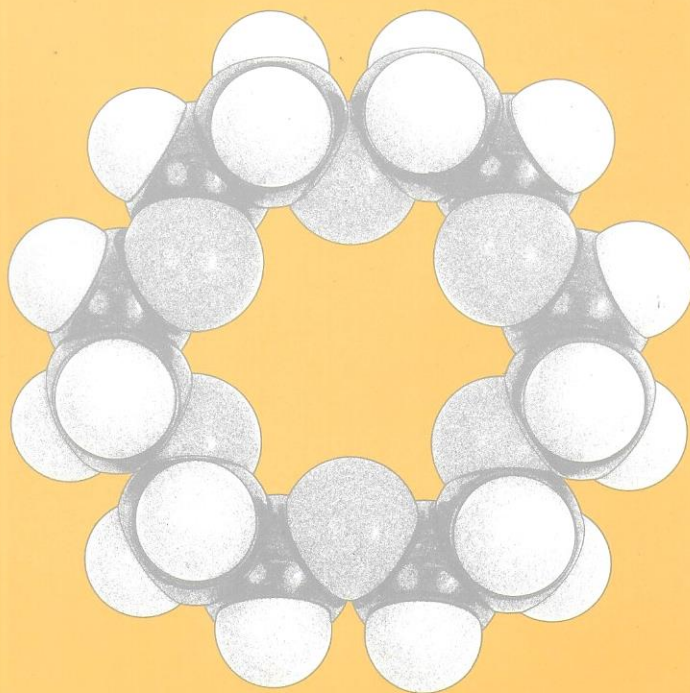


Part I Peptide synthesis
Part II High-performance
liquid chromatography



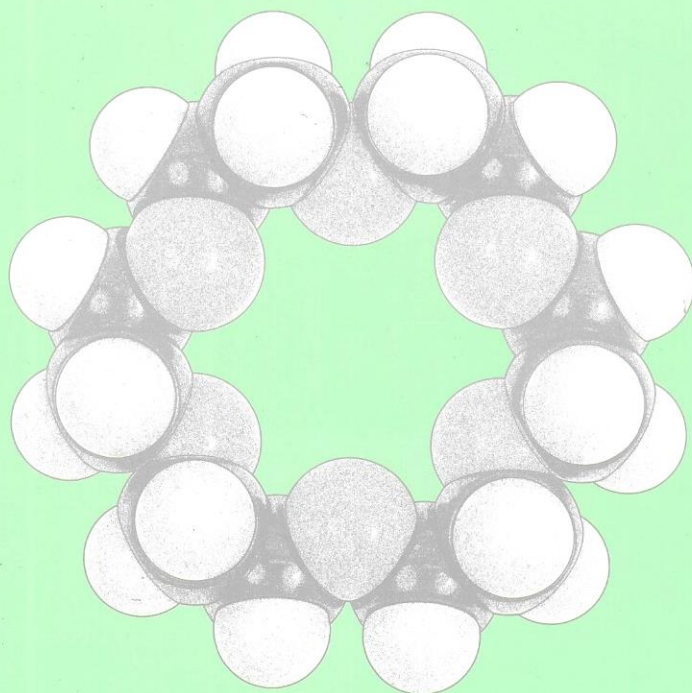
— BLOCK 3 —

SPECTROSCOPY
and
STRUCTURE





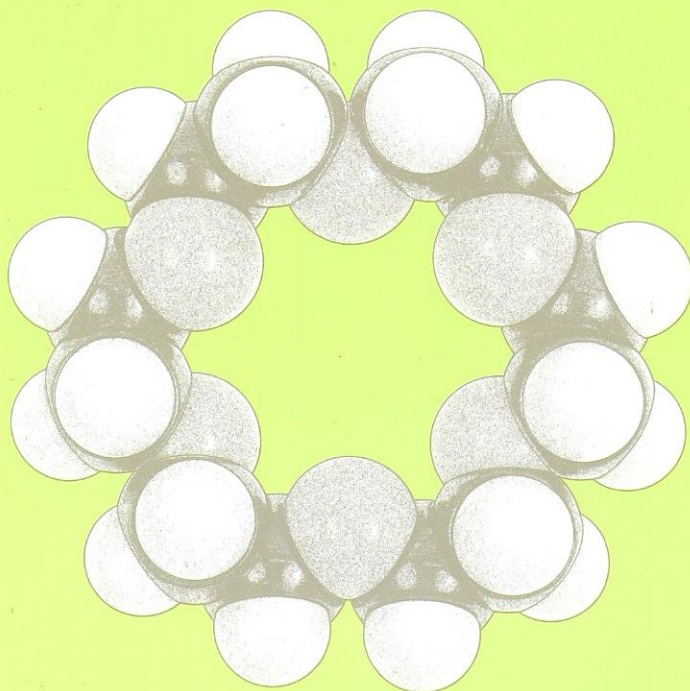
— BLOCK 4 —
FUNCTIONAL GROUP
INTERCONVERSION:
OXIDATION
and
REDUCTION





— BLOCK 5 —

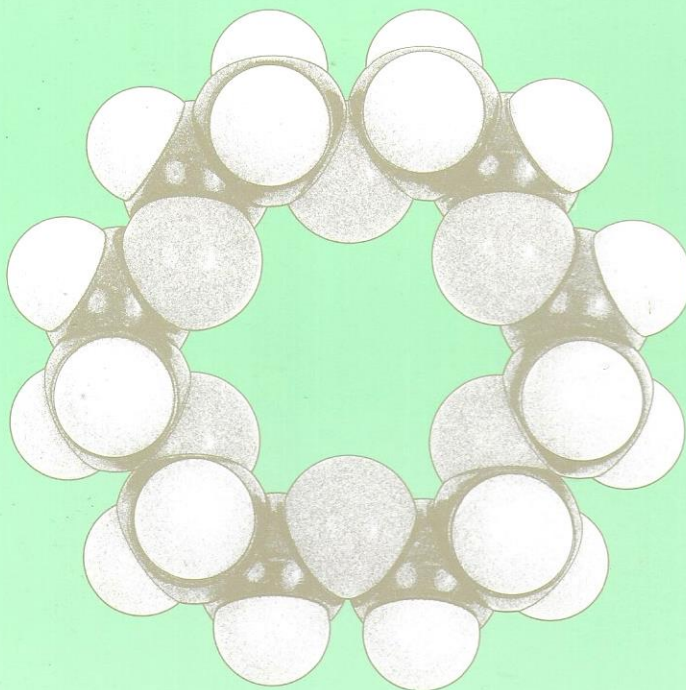
ORGANOHETEROATOM
REAGENTS:
ADDITION
and
COUPLING REACTIONS





— BLOCK 6 —

ENOLS, ENOLATES
and
ENAMINES: FORMATION
and
ALKYLATION

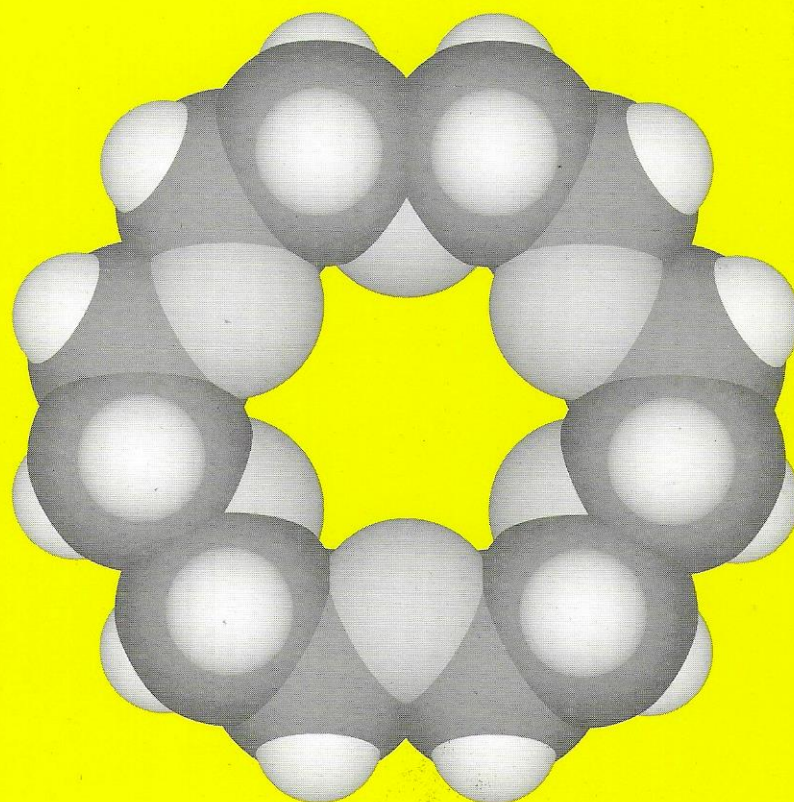
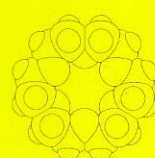
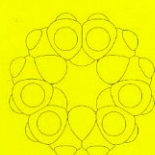
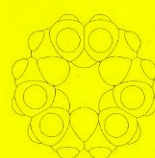
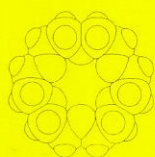
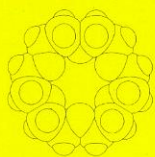




— BLOCK 7 —

ENOLS, ENOLATES
and
ENAMINES:
CONDENSATION
REACTIONS

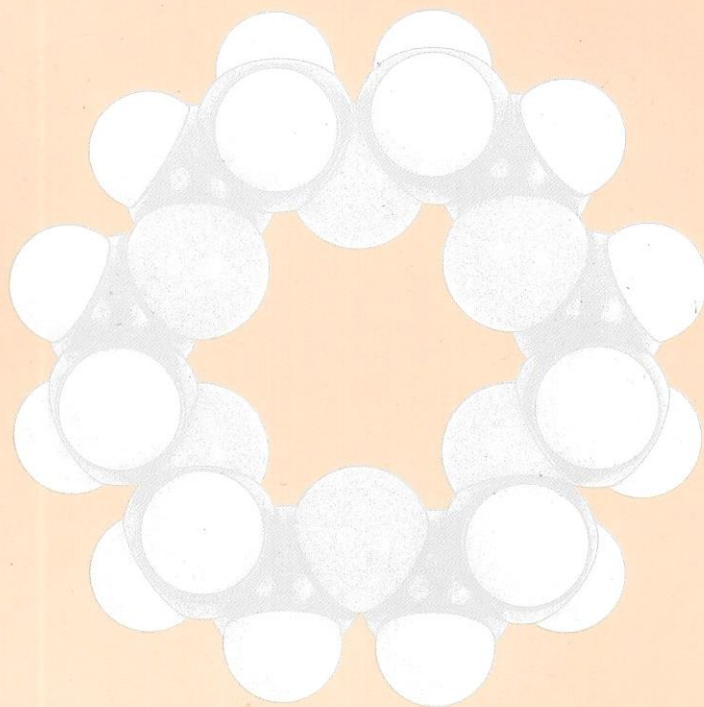




Synthesis of cyclic compounds



—CASE STUDY 1—
PEPTIDE SYNTHESIS
—CASE STUDY 2—
PHEROMONES



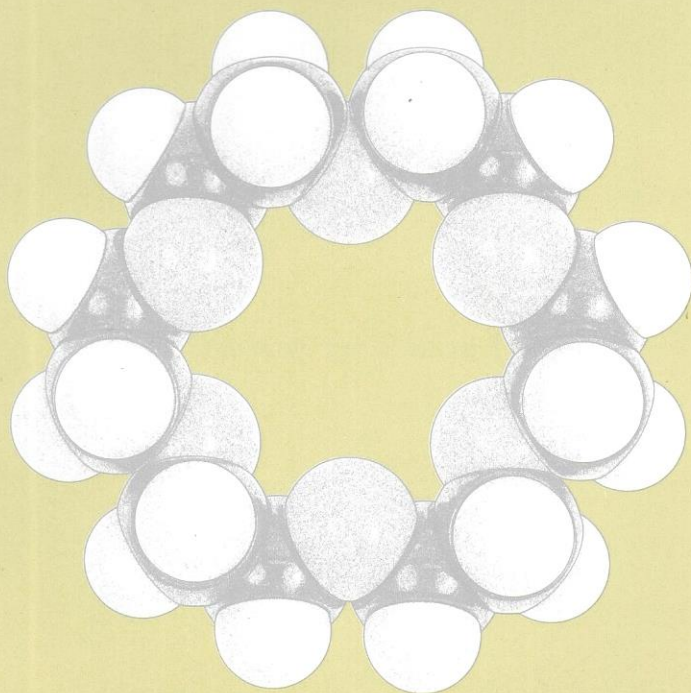


— CASE STUDY 3 —

PROSTAGLANDINS

— CASE STUDY 4 —

PENICILLIN *and* BEYOND:
THE β -LACTAM ANTIBIOTICS



S342 Topic Study I



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PHYSICAL CHEMISTRY

PRINCIPLES OF CHEMICAL CHANGE

TOPIC STUDY I
THE THREAT TO STRATOSPHERIC OZONE

S342 Topic Study 2

2005

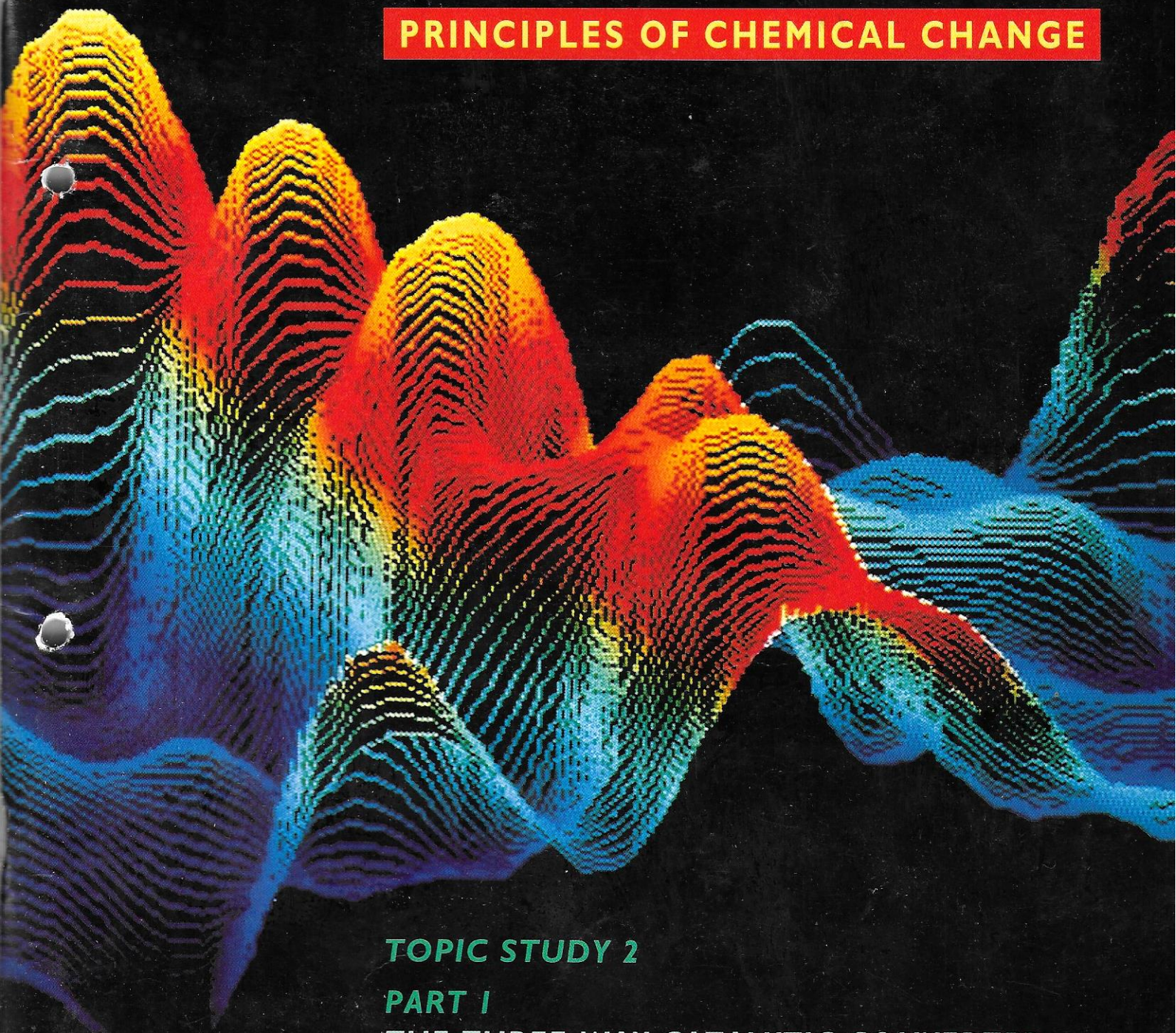


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PRINCIPLES OF CHEMICAL CHANGE



TOPIC STUDY 2

PART 1

THE THREE-WAY CATALYTIC CONVERTER

PART 2

DYNAMIC SURFACES

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S342 Topic Study 3

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PRINCIPLES OF CHEMICAL CHANGE

TOPIC STUDY 3
CORROSION

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